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**Third Five-Year Review Report**  
**Springfield Township Dump Superfund Site**

**Springfield Township**  
**Oakland County, Michigan**

**September 2009**

**PREPARED BY:**

**United States Environmental Protection Agency**  
**Region 5**  
**Chicago, Illinois**

Approved by:

Date:

A handwritten signature in dark ink, appearing to read "Richard C. Karl", written over a horizontal line.

A handwritten date "9-14-09" in dark ink, written over a horizontal line.

Richard C. Karl  
Director  
Superfund Division

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## **List of Acronyms**

ARAR	Applicable or Relevant and Appropriate Requirement
BGS	Below Ground Surface
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
COC	Contaminants of Concern
EPA	United States Environmental Protection Agency
ESD	Explanation of Significant Difference
FYR	Five-Year Review
GZA	GZA GeoEnvironmental
ICs	Institutional Controls
ISCO	In-Situ Chemical Oxidation
MCL	Maximum Contaminant Level
MCLG	Maximum Contaminant Level Goal
MDEQ	Michigan Department of Environmental Quality
MDNR	Michigan Department of Natural Resources
NCP	National Contingency Plan
NPL	National Priorities List
OCHD	Oakland County Health Department
O&M	Operation and Maintenance
PAH	Polycyclic Aromatic Hydrocarbon
PCB	Polychlorinated Biphenyl

PEAS	Pollution Emergency Alerting System
PPB	Parts per Billion
PRP	Potentially Responsible Party
RA	Remedial Action
RAO	Remedial Action Objective
RD	Remedial Design
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
RPM	Remedial Project Manager
SVE/AS	Soil Vapor Extraction/Air Sparge
SSAC	Springfield Site Action Committee
STSSC	Springfield Township Site Steering Committee
SVE	Soil Vapor Extraction
SVOC	Semivolatile Organic Compound
VOC	Volatile Organic Compound

## **Executive Summary**

The Springfield Township Dump Site (the Springfield Site) is located at 12955 Woodland Trail, 3 miles south of Davisburg, Michigan. The site is a rural, 12-acre residential lot surrounded by dense woods and rolling hills. Unauthorized disposal of liquid waste and about 1,500 55-gallon drums contaminated approximately 4 acres of the property sometime in the 1960's.

The State of Michigan performed a partial cleanup in 1979, removing the 1,500 drums and about 711 tons of soil contaminated with polychlorinated biphenyls (PCBs). Michigan referred the Site to the United States Environmental Protection Agency (EPA) following completion of the state removal action. EPA inspected the Springfield Site in 1982, and placed it on the National Priorities List (NPL) in September 1983. EPA issued a Record of Decision (ROD) in December 1990, an Explanation of Significant Differences (ESD) in 1993, and a ROD Amendment in 1998. A Consent Decree for implementation of the ROD and ROD Amendment was entered in the United States District Court for the Eastern District of Michigan on September 14, 1998. Ten companies signed the Consent Decree.

The remedy selected for the Site includes excavation and onsite treatment of PCB contaminated surface soil, a soil cover over the excavated area, a Soil Vapor Extraction (SVE)/air sparging system to remove Volatile Organic Compounds (VOCs) from the saturated and unsaturated subsurface, the installation of a groundwater extraction and treatment system to address contaminated groundwater, and Institutional Controls (ICs) to limit potential exposure to contaminated media. The first Five-Year Review (FYR) was conducted in 1999, and the second in 2004. These reviews confirmed that the excavation and onsite treatment of contaminated surface soils in combination with the soil cover, soil vapor extraction/air sparging system, groundwater extraction and treatment system, and institutional controls were effective in preventing direct contact with contaminants at the Site.

The remedy is currently protective of human health and the environment in the short term because human exposure to contaminated media is under control. The progress toward long term protectiveness at the site was interrupted, however, by the May 2009 bankruptcy of Chrysler Corporation, which precipitated the shutdown of the groundwater extraction and treatment facility in July 2009. This shutdown does not represent an immediate threat to human health or the environment because extraction and treatment was for groundwater restoration and not intended as a containment mechanism. Nevertheless, the remedy must be fully functional and an Institutional Controls study must be completed before a long term protectiveness determination can be made. EPA is evaluating the viability of the remaining signatories to the 1998 Consent Decree (CD) and will take all steps necessary to restore the remedial action once the viable PRPs are notified.

## Five-Year Review Summary Form

SITE IDENTIFICATION		
Site name ( <i>from WasteLAN</i> ): Springfield Township Dump		
EPA ID ( <i>from WasteLAN</i> ): MID980499966		
Region: 05	State: MI	City/County: Oakland County
SITE STATUS		
NPL status: <input checked="" type="checkbox"/> Final <input type="checkbox"/> Deleted <input type="checkbox"/> Other (specify)		
Remediation status (choose all that apply): <input type="checkbox"/> Under Construction <input checked="" type="checkbox"/> Operating <input type="checkbox"/> Complete		
Multiple OUs?* <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Construction completion date: 08 / 25 / 2000	
Has Site been put into reuse? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
REVIEW STATUS		
Lead agency: <input checked="" type="checkbox"/> EPA <input type="checkbox"/> State <input type="checkbox"/> Tribe <input type="checkbox"/> Other Federal Agency		
Author name: William J. Ryan		
Author title: Remedial Project Manager	Author affiliation: U.S. EPA, Region 5	
Review period: ** 08/25/2008 to 9/2009		
Date(s) of Site inspection: 03/16/2009		
Type of review: <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span><input checked="" type="checkbox"/> Post-SARA</span> <span><input type="checkbox"/> Pre-SARA</span> <span><input type="checkbox"/> NPL-Removal only</span> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span><input type="checkbox"/> Non-NPL Remedial Action Site</span> <span><input type="checkbox"/> NPL State/Tribe-lead</span> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span><input type="checkbox"/> Regional Discretion</span> </div>		
Review number: <input type="checkbox"/> 1 (first) <input type="checkbox"/> 2 (second) <input checked="" type="checkbox"/> 3 (third) <input type="checkbox"/> Other (specify)		
Triggering action: <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span><input type="checkbox"/> Actual RA OnSite Construction at OU # _____</span> <span><input type="checkbox"/> Actual RA Start at OU# _____</span> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span><input type="checkbox"/> Construction Completion</span> <span><input checked="" type="checkbox"/> Previous Five-Year Review Report</span> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span><input type="checkbox"/> Other (specify)</span> </div>		
Triggering action date ( <i>from WasteLAN</i> ): 09 / 29 / 2004		
Due date ( <i>five years after triggering action date</i> ): 09 / 29 / 2009		

\* ["OU" refers to operable unit.]

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\*\* [Review period should correspond to the actual start and end dates of the Five-Year Review in WasteLAN.]



## **Five-Year Review Summary, continued**

### **Issues:**

- 1) Appropriate deed restrictions were placed on the portion of the property where soil contamination was located. Further evaluation is needed to determine if there are any off-site locations related to the ground water contaminant plume where institutional controls are necessary.
- 2) The bankruptcy of Chrysler Corporation caused the shutdown of the groundwater extraction and treatment facility.
- 3) Previously identified deficiencies in the remedial action that include:
  - Inadequate characterization of residual contamination
  - Questionable effectiveness of the groundwater extraction system
  - Questionable effectiveness of the Soil Vapor Extraction (SVE) system
  - Questionable effectiveness of the Air Sparging system
  - Questionable adequacy of the monitoring well network

### **Recommendations and Follow-up Actions:**

- 1) Complete an Institutional Controls study for those areas of the site where contaminated ground water has migrated and implement institutional controls that ensure ground water is not consumed and there is no interference with the remedy.
- 2) EPA will evaluate the viability of the remaining signatories to the 1998 Consent Decree (CD) and take all steps necessary to restore implementation of the remaining elements of the remedial action once viable PRPs are identified.
- 3) EPA will require that the necessary characterization and optimization work is completed once the remedial action has been restored.

### **Protectiveness Statement:**

The remedy is currently protective of human health and the environment in the short term because human exposure to contaminated media is under control. The progress toward long term protectiveness at the site was interrupted, however, by the May 2009 bankruptcy of Chrysler Corporation, which precipitated the shutdown of the groundwater extraction and treatment facility in July 2009. This shutdown does not represent an immediate threat to human health or the environment because extraction and treatment was for groundwater restoration and not intended as a containment mechanism. Nevertheless, the remedy must be fully functional and an Institutional Controls study must be completed before a long term protectiveness determination can be made. EPA is evaluating the viability of the remaining signatories to the 1998 Consent

Decree (CD) and will take all steps necessary to restore the remedial action once the viable PRPs are notified.

**Other Comments:**

After Chrysler Corporation filed for bankruptcy in May 2009, EPA was notified on June 30, 2009 that Chrysler's contractor, GZA GeoEnvironmental (GZA), had been instructed by Chrysler to turn off the power and secure the equipment until they receive further direction from Chrysler. EPA is negotiating with the other signatories to the 1998 Consent Decree to reestablish operations at the site. There are a number of initiatives at the site that Chrysler committed to prior to the bankruptcy which have not been completed. These include:

- Characterization of residual contamination
- Optimization of the groundwater extraction system
- Optimization of the Soil Vapor Extraction (SVE) system
- Optimization of the Air Sparging system
- Optimization of the Monitoring well network

EPA will require that the necessary characterization and optimization work is completed once the remedial action has been restored.

# Five-Year Review Report

## I. Introduction

The purpose of this five-year review is to determine whether the remedy at the Springfield Site is protective of human health and the environment. The methods, findings, and conclusions of reviews are documented in Five-Year Review reports. In addition, Five-Year Review reports identify issues found during the review, if any, and recommendations to address them.

The Agency is preparing this five-year review pursuant to CERCLA §121 and the National Contingency Plan (NCP). CERCLA §121 states:

*If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the Site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. In addition, if upon such review it is the judgment of the President that action is appropriate at such Site in accordance with section [104] or [106], the President shall take or require such action. The President shall report to the Congress a list of facilities for which such review is required, the results of all such reviews, and any actions taken as a result of such reviews.*

The agency interpreted this requirement further in the National Contingency Plan (NCP); 40 CFR §300.430(f)(4)(ii), which states:

*If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the Site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after the initiation of the selected remedial action.*

The United States Environmental Protection Agency (EPA) Region 5 has conducted this Five-Year Review of the remedial actions implemented at the Springfield Township Dump Site in Oakland County, Michigan. This review was conducted from August 25, 2008, when EPA sent the State official notification that the Five-Year Review (FYR) was beginning, through July 2009. This report documents the results of the review. EPA was assisted in the review of the Springfield Site by the Michigan Department of Environmental Quality.

This is the third FYR for the Springfield Site. The triggering action for this statutory review is the date of the second FYR, recorded in EPA's WasteLAN database as 09/29/2004. This FYR is required by the fact that hazardous substances, pollutants, or contaminants remain at the Site above levels that allow for unlimited use and unrestricted exposure. This document will become part of the Springfield Site file and it will be placed into the site information repository located at the Springfield Township Hall, 650 Broadway, Davisburg, MI.

## II. Site Chronology

**Table 1: Chronology of Site Events**

<b>Event</b>	<b>Date</b>
Initial discovery of problem or contamination	Mid 1970's
The State of Michigan performs a partial cleanup	1979-1980
Proposed for inclusion on the NPL	12/30/1982
NPL listing	09/08/1983
Remedial Investigation/Feasibility Study	02/1985 - 07/1990
ROD signature	09/29/1990
Remedial Design	03/15/1991 - 12/11/1992
AOC for Remedial Design	03/20/1992
Remedial Design Complete/Remedial Action Start	12/11/1992
ESD	11/18/1993
UAO Remedial Action for Groundwater	11/10/1993
Consent Decree for Soil and Groundwater Remedial Action	9/14/1998
ROD Amendment	06/10/1998
First Five-Year Review	07/02/99
Final Site Inspection	08/22/2000
Construction Completion Report (PCOR)	08/25/2000
SVE system shut-down	11/2001
Second Five-Year Review	09/29/2004

### III. Background

**Physical Characteristics** - The Site is located on a densely wooded, 12-acre rural residential lot near Davisburg, Michigan (Figure 1). Davisburg and Springfield Township are located in northwest Oakland County. Approximately 4 acres of the Springfield Site were used for unauthorized chemical waste disposal during the 1960's. There are about 320 homes within one mile of the Site, with the nearest residence located approximately 800 feet away. All homes in the area are served by private wells.

The Springfield Site lies on a northeast-southwest trending pitted outwash plain. Proximal surface water bodies include Big Lake to the northeast, and White Lake and Duck Lake to the southwest. Wetlands to the west, southeast, and southwest of the Springfield Site are situated in glacial kettles created by the most recent retreat of the Laurentide ice sheet. Water levels in these wetlands are several feet higher than the local water table and appear to have little influence on the groundwater flow regime.

The unconsolidated deposits consist of well-sorted fine to coarse-grained sand with some silt-sized particles. These deposits extend to a depth of 140 to 150 ft. Underlying the sandy outwash deposits is a layer of interbedded sands and clay, which extend from 150 to 175 ft. From a seismic survey, bedrock is estimated to be about 350 ft below ground surface (BGS).

**Land and Resource Use** - The Springfield Site is in a rural, residential area with about 320 homes within one mile. Groundwater underlying the Springfield Site is first encountered in an unconfined aquifer. The depth to the local water table varies from about 70 to 110 ft beneath the surface, consistent with the rolling topography. Groundwater in the unconfined aquifer generally flows northeast towards Big Lake. Residences surrounding the Springfield Site rely on groundwater for their drinking water, but none currently test positive for contaminants related to the Site.

**History of Contamination** - Industrial waste disposal at the Springfield Site was documented between 1966 and 1968, but disposal may have occurred over a longer period of time. An unknown amount of industrial waste was drained into excavated pits or natural depressions on approximately 4 acres of the Nickson property (Figure 2), and approximately 1,500 barrels were abandoned at the Springfield Site. Waste was dumped by haulers under contract with the waste generators. The first official notification of illegal dumping was made by the supervisor of Rose Township in a letter to the Oakland County Health Department (OCHD) in June 1968.

**Initial Response** - The OCHD issued a certified letter to the property owner, Mr. Joseph Nickson, in July 1971 stating that corrective action was required. In April 1979, a Pollution Emergency Alerting System (PEAS) complaint was filed by the OCHD with the Michigan Department of Natural Resources (MDNR). MDNR sampled drums at the site in June 1979 as a result of this complaint. Sample analyses identified paint sludge, solvents, PCBs, oil, and grease.

MDNR sampled well water at private residences near the Springfield Site from August 1979 through June 1980, during which time several residential wells in the vicinity were found to be contaminated with low levels of tetrachloroethene (PCE) and trichloroethene (TCE), VOCs associated with the Springfield Site.

The Springfield Site was declared an environmental emergency by the State of Michigan Toxic Substances Control Commission (TSCC) in September 1979. The TSCC based their findings on potential threats to human health and the environment. During the same month, MDNR began the excavation and removal of drums from the site. In December 1979, a special appropriation was made by the State legislature for an investigation and cleanup of the affected groundwater. , The 1,500 55-gallon drums were removed by July 1980.

From 1979 to 1980, 711 tons of contaminated soil was excavated and taken to a licensed hazardous waste facility in Alabama. This included much of the material from the disposal pit located in the central portion of the Site. Some waste was left on-site because of insufficient funding. This removal action left the disposal pit area several feet below the original grade, and sandy fill material was brought in to re-grade the excavation.

MDNR initiated a hydrogeological investigation at the Springfield Site in 1980, and identified a plume of groundwater contamination beneath the property. MDNR also built a fence around the disposal area, but left the remaining soil and groundwater contamination for EPA to address under its federal Superfund authority.

EPA inspected the Site in 1982. EPA placed the Site on the National Priorities List (NPL) after submitting the site inspection report in September 1983.

From 1985 to 1989, MDNR completed a Remedial Investigation (RI) to determine the nature and extent of soil and groundwater contamination. The RI included a risk assessment to determine the potential human health risks posed by the site. In July 1990, a Feasibility Study (FS) Report was completed and a Proposed Plan for site cleanup was released to the public for comment.

In the summer of 1991 CH2M Hill conducted additional remedial design field investigations after EPA determined that additional data were needed to establish the character and quantity of contaminated media, and to refine the remedial design strategy, project schedule, and cost estimates. As a result, soil borings were made to evaluate the vertical and horizontal extent of contamination in the vadose zone, groundwater samples were collected, and new monitoring wells were installed to replace damaged ones.

**Basis for Taking Action** Hazardous substances have been released at the Springfield Site. These substances include:

**Table 2: Contaminants of Concern (COCs)**

<u>Soil</u> (Surface and Subsurface)	<u>Groundwater</u>
PCBs	Arsenic
Arsenic	Lead
Barium	Toluene
Lead	Trichloroethylene (TCE)
Dieldrin	1,1-Dichloroethylene (1,1-DCE)
Toluene	1,1-Dichloroethane (1,1-DCA)
Chlorobenzene	1,1,1-Trichloroethane (1,1,1-TCA)
Trichloroethylene	Trichloroethylene

Exposure to soil and groundwater containing hazardous substances is associated with significant human health risks due to the exceedence of EPA's risk management criteria for reasonable maximum exposure scenarios. EPA determined that human health risks were highest for ingestion of contaminants in groundwater. Soil contamination also posed a risk to human health through dermal contact, ingestion, and inhalation of contaminated dust or vapor.

#### **IV. Remedial Actions**

**Remedy Selection** - A ROD was signed on September 29, 1990. Remedial Action Objectives (RAOs) were developed from data collected during the RI. The remedial actions required by the ROD included:

- Excavation and on-site incineration of contaminated soils
- Installation and operation of a Soil Vapor Extraction (SVE) system to remove VOCs from site soils
- Installation and operation of a groundwater extraction and treatment system
- Extension and maintenance of an existing fence surrounding the site.

To achieve the RAOs, the 1990 remedy specifies the following:

- Excavation and thermal decontamination of soils to remove PCBs, VOCs, Semi-VOCs, and pesticides from the source area
- Solidification of incinerator ash according to Applicable or Relevant and Appropriate Requirements (ARARs)

- Solidification of soils contaminated only with metals
- Re-deposition of ash and treated soil on-site (the ash either stabilized to make it inert prior to on-site disposal or placed in a properly designed solid waste unit on-site)
- Re-contouring of the excavated areas and control of the ash or dust emissions
- Installation and operation of a groundwater extraction and treatment system that uses carbon adsorption to treat the groundwater before re-injection into the aquifer

EPA issued an Explanation of Significant Differences (ESD) on November 10, 1993 for the groundwater component of the 1990 ROD. The ESD established numeric values for background concentrations of lead and arsenic in groundwater. These values were not specifically identified in the 1990 ROD.

A ROD Amendment was signed on June 10, 1998. The ROD Amendment outlines modifications to the estimated volume of soil treated on-site, revisions to certain soil and groundwater cleanup standards, modification of the method of on-site treatment of certain contaminated soils, and deed restrictions on a portion of the Site. These modifications were based on additional studies that are documented in the administrative record. The 1998 ROD Amendment specifies the following:

- All soils that contain semi-volatile organic contaminants (such as PCBs) in excess of the Remedial Action Standards (RASs) will be excavated to a depth of 6 feet.
- All soils containing PCBs over 50 ppm will be excavated regardless of depth.
- Excavated soils contaminated with semi-volatile organics will be treated using either soil washing, low temperature thermal desorption, or solvent extraction methods. Treated soil containing residual levels of up to 5 ppm of PCBs and 620 ppb of dieldrin (a pesticide) can be backfilled into the excavated area.
- Treated soil that exceeds the RAS for metals will be solidified and backfilled on-site or disposed of off-site at a permitted facility.
- All areas of excavation will be returned to grade, covered with a 1-foot thick, clean soil cover (cap), and re-vegetated.
- All soils on the portion of the site that is the Nickson property, outside of the area of semi-volatile organic contamination, which exceed the RAS for metals to a depth of 1.5 feet, will be excavated and either treated (solidified) and backfilled on-site or disposed of at a permitted facility.



- The future use of the south 500 feet of the Nickson property will be restricted to prevent activities that would disturb the soil cap or the backfilled soils. (This provision is addressed in the Deed Restrictions, see Attachment 1, but will be subject to review and expansion in the Institutional Controls Study called for in Section IX).
- All contaminated soil outside of the Nickson property will be excavated to a depth meeting the RAS, and either solidified and backfilled on the Nickson property or disposed of at a permitted facility. Soil treatment residuals will not be placed on the "Tinsley property".
- Soil containing VOCs will be treated using the soil vapor extraction method selected in the 1990 ROD, but cleanup levels will be adjusted to current State standards.
- Groundwater extraction and treatment will continue pursuant to the 1990 ROD, but cleanup levels will be adjusted to current State standards.

Final cleanup goals for the Site are as follows:

**Table 3: Remedial Action Standards**

**Remedial Action Standards for Semi-Volatile Organics in Soil**

<u>Contaminant</u>	<u>RAS</u>
PCBs	1 ppm <sup>(a)</sup>
Dieldrin	620 ppb <sup>(c)</sup>

**Remedial Action Standards for Metals in Soil**

<u>Contaminant</u>	<u>RAS</u>
Arsenic	9 ppm <sup>(b)</sup>
Barium	30,000 ppm <sup>(c)</sup>
Lead	400 ppm <sup>(c)</sup>

**Remedial Action Standards for Volatile Organics in Soil**

<u>Contaminant</u>	<u>RAS</u>
Toluene	16 ppm <sup>(d)</sup>
Chlorobenzene	2 ppm <sup>(d)</sup>
Trichloroethylene	0.10 ppm <sup>(d)</sup>

### Remedial Action Standards for Groundwater

<u>Contaminant</u>	<u>RAS</u>
Toluene	1 ppm <sup>(e)</sup>
Trichloroethylene (TCE)	5 ppb <sup>(e)</sup>
1,1-Dichloroethylene (1,1-DCE)	7 ppb
1,1-Dichloroethane (1,1-DCA)	880 ppb
1,1,1-Trichloroethane (1,1,1-TCA)	200 ppb
Lead	50 ppb (Background)
Arsenic	20 ppb (Background)

#### Notes:

*ppm = parts per million.*

*ppb = parts per billion.*

*(a) 1 ppm first 6 feet and 50 ppm below 6 feet.*

*(b) Background level for arsenic established in ROD Amendment.*

*(c) ROD Amendment dermal contact standard, MERA Operational Memo #8, Rev. 4, June 1995.*

*(d) ROD Amendment groundwater protection standard, MERA Op. Memo #8, Rev. 4, June 1995.*

*(e) ROD Amendment groundwater standard, MERA Operational Memo #8, Rev. 4, June 1995.*

The selected remedy eliminates the principal threats posed by the Site by reducing the toxicity and mobility of the contaminated materials, thereby reducing the potential exposure to VOCs, Semi-VOCs, and metals.

**Remedy Implementation** - EPA initiated the Remedial Design (RD) for the groundwater and SVE systems in 1992. On March 20, 1992, EPA and the PRPs entered into an Administrative Order on Consent (AOC) to complete the RD for the groundwater and SVE systems, calculate background levels on groundwater for lead and arsenic, and pilot test the SVE system. On November 12, 1992, EPA and the PRPs entered into another AOC requiring the PRPs to pay \$1,157,373.04 in past costs incurred by EPA and the U.S. Department of Justice.

The RD was finalized on December 11, 1992. On November 10, 1993, EPA issued a Unilateral Administrative Order (UAO) to the PRPs to construct and operate the groundwater treatment system approved by EPA under the 1992 AOC for RD. The PRPs completed construction of the groundwater extraction and treatment system in 1994. A pre-final inspection was conducted by the EPA in June 1994, and EPA determined that the groundwater extraction and treatment system was operating as intended. The PRPs operated the system under the UAO until 1998.

In March 1998, the PRPs entered into a Consent Decree (CD) with EPA to implement all remedial actions presented in the 1998 ROD Amendment and to pay certain remaining past and future oversight costs. The 1993 UAO was terminated by EPA upon entry of the CD.

During the summer of 1999, the PCB contaminated soils were excavated and treated using an on-site soil washing system. Most of the treated soil batches achieved treatment standards and were replaced. Batches that did not achieve treatment standards were either re-treated or disposed of in a licensed, off-site facility. A soil cover was then placed over the treated area and grass was planted.

SVE equipment was installed in May 2000, along with an air sparging system to speed the restoration of groundwater at the Site. EPA conducted a final inspection of the SVE and air sparging systems on August 22, 2000, and determined that the systems were operating as designed.

Below is a summary of remedial actions:

- A total of 12,000 cubic yards of soil contaminated with SVOCs in excess of the RAS were excavated, treated and backfilled onsite or disposed of off-site at a permitted facility.
- Excavated soils contaminated with semi-volatile organics were treated using either soil washing, low temperature thermal desorption, or solvent extraction methods. Treated soil containing residual levels of up to 5 ppm of PCBs and 620 ppb of dieldrin (a pesticide) were backfilled in the excavated area.
- Treated soil that exceeded the RAS for metals was solidified and backfilled onsite or disposed of off-site at a permitted facility.
- All excavated areas of were returned to grade, covered with a 1-foot thick layer of clean soil, and re-vegetated.
- All soil on the Nickson property, outside of the area of semi-volatile organic contamination, which exceeded the RAS for metals to a depth of 1.5 feet, were excavated and either treated (solidified) and backfilled onsite or disposed of at a permitted facility.
- The future use of the south 500 feet of the Nickson property has been restricted to prevent activities that would disturb the soil cap or the backfilled soils (This provision is addressed in the Deed Restrictions, see Attachment 1, but will be subject to review and expansion in the Institutional Controls Study called for in Section IX).
- Soils containing VOCs were treated using soil vapor extraction.
- Groundwater contamination is being addressed by an extraction and treatment system designed to pump and treat 5 to 10 gallons per minute prior to re-injection.

EPA has determined that all RA construction activities were performed according to specifications. The entire Site achieved construction completion status when the PCOR was signed on August 25, 2000. After groundwater RASs have been met, EPA will issue a Final Close Out Report.

**Institutional Controls** - Institutional Controls (ICs) are required to ensure the protectiveness of the remedy. ICs are non-engineered instruments, such as administrative and legal controls, that help to minimize the potential exposure to contamination and protect the integrity of the remedy. ICs are required to ensure long-term protectiveness for any areas that do not allow unlimited use or unrestricted exposure (UU/UE).

Figure 3 identifies the area covered by deed restrictions filed with the county in 1998. The table below summarizes institutional controls for these restricted areas.

**Institutional Controls Summary Table**

<b>Media, Engineered Controls, &amp; Areas that Do Not Support UU/UE Based on Current Conditions.</b>	<b>IC Objective</b>	<b>Title of Institutional Control Instrument Implemented (note if planned)</b>
<i><b>Springfield Township Dump Site</b></i> - The area covered by deed restrictions filed with the county in 1998 is identified in Figure 3.	Prohibit filling, grading, excavating, mining, drilling, building, or other activities that would disturb soils, subsoils, or groundwater.	Deed Restrictions

Institutional Controls in the form of deed restrictions for the affected area were required by the 1998 ROD Amendment. These restrictions were filed with the Oakland County Register of Deeds on November 24, 1998. A copy of the restrictions is provided in Attachment 1, and a map showing the area affected by the restrictions is provided in Figure 3. The restrictions appear to be adequate to ensure that the remedial action objective for the on-site soils will not be disturbed provided it has not been superseded or otherwise nullified. Additional work must be done to identify any areas where the ground water plume is located outside the restricted area. In these areas institutional controls may be necessary until remedial action objectives for groundwater are achieved.

EPA will request that the PRPs undertake an IC Study to identify those areas not covered by the existing deed restriction which need institutional controls to ensure that the remedy is protective in the short and long-term. Those areas include, but are not limited to, areas where the ground water contaminant plume is located. The IC Study will be completed for the Site within six months after the release of this Five-Year Review Report. Among other things, the IC Study will examine whether the deed restrictions are currently valid and effective, have not been modified or superseded, and whether the restrictions create rights that can be enforced by EPA or MDEQ

in the event any of its stated prohibitions are violated. Additionally, the IC Study will examine areas outside of the deed restriction and where ground water contamination is located to determine the need for further institutional controls. The study will also identify measures necessary to monitor and maintain the effectiveness of the implemented institutional controls.

**System Operation and Maintenance** – EPA conducted the site inspection prior to Chrysler Corporation's bankruptcy. At that time system Operation and Maintenance (O&M) was performed by the PRPs in compliance with the CD and Scope of Work. The primary components of the remedy addressed by O&M are the groundwater treatment system and the soil vapor extraction/air sparging system. The PRP's contractor (prior to Chrysler's bankruptcy this was GZA GeoEnvironmental, Inc.) conducted routine weekly inspections of the Springfield facilities, and submitted quarterly progress reports to EPA and MDEQ. In addition to the quarterly progress reports, GZA also prepared semi-annual groundwater monitoring reports.

## **V. Progress since the Last Review**

### **Protectiveness statements from the last review:**

***Short-term Protectiveness*** *The remedy is protective of human health and the environment in the short term. There are no current exposure pathways. The soil cover, soil vapor extraction/air sparging system, groundwater extraction and treatment system, and institutional controls are functioning as designed, and have achieved the remedial objectives, which include minimizing the migration of contaminants to groundwater and surface water and preventing direct contact with contaminants at the Site.*

***Long-term Protectiveness*** *Long-term protectiveness of the remedy is dependent upon the effectiveness of the groundwater extraction and treatment system, soil vapor extraction/air sparging system, and, potentially, an in-situ chemical oxidation system in removing contaminants from groundwater at the Site. This will be verified by continued monitoring and analyzing the extent of the groundwater extraction and treatment system capture zone. The groundwater pump and treat portion of the remedy is expected to be protective of human health and the environment once cleanup standards for groundwater are attained.*

### **Status of recommendations and follow-up actions from last review:**

#### ***Issues:***

- *Approval for and implementation of the In-situ chemical oxidation proposal*
- *Extraction well fouling and pumping rate*
- *Inadequate Site characterization*
- *The potential need for additional monitoring wells*

- *The need for contaminant capture analysis*
- *Concentrations of TCE above cleanup standards at monitoring well MW4SR*
- *The need for verification sampling*

***Recommendations and Follow-up Actions:***

- *A proposal for in-situ chemical oxidation is currently under study by EPA and Michigan Department of Environmental Quality (MDEQ). Once the final concerns have been resolved, the contractor for the Potentially Responsible Party (PRP) will initiate the process. EPA anticipates this will begin before the end of calendar year 2004.*
  - Status: EPA approved the in-situ chemical oxidation work plan November 3, 2004. The work was carried out between October 2005 and January 2006. A project summary was submitted August 24, 2006.
- *The potential fouling of the extraction well due to dewatering needs investigation. If problems are found they should be resolved by the PRPs. After the current well fouling/pumping rate issues are addressed, a periodic analysis of the well's specific capacity can be used to determine when fouling begins to reduce the extraction well's effectiveness.*
  - Status: The design flow rate for the extraction well is 10 GPM. When the flow rate drops below 8 GPM, GZA (the contractor for the PRPs) now schedules a well rehabilitation service call, which includes well cleaning, pump service, and well capacity test. After servicing, well capacity typically increases to more than 20 GPM.
- *Site characterization needs improvement. To address this, the contractor for the PRPs is conducting a new survey of the well elevations. This should provide a better representation of the water table. EPA also recommends that investigators obtain soil and groundwater samples when any new subsurface monitoring/remediation equipment is installed.*
  - Status: A well survey was performed in 2004, and additional soil and groundwater samples were collected when the In-Situ Chemical Oxidation (ISCO) injection and associated monitoring event was conducted.
- *Construction details for existing monitoring wells need review. Once this is complete, the potential need for additional monitoring wells will be addressed.*
  - Status: Construction details for the existing monitoring wells are now included in the semi-annual groundwater monitoring reports. Additional soil borings and

groundwater monitoring wells were completed in 2008 to support the ISCO study.

- *Once the new well survey is complete and the characterization of the water table is adequately addressed, the issue of contaminant capture should be analyzed.*
- Status: The issue of contaminant capture is still open to debate, however, current groundwater monitoring indicates that the contaminant plume is stable and there is no indication that contaminants of concern are migrating beyond the site boundaries. Nevertheless, the monitoring well network is insufficient to determine whether the plume is migrating, and EPA will require expansion when remedy funding is restored.
- *The concentrations of TCE in MW4SR have increased to current levels since the groundwater treatment and injection system began operating, which may indicate that the water table mounding caused by injection is mobilizing TCE in the vadose zone. EPA recommends this be investigated during the installation of monitoring points for the in-situ chemical oxidation process.*
- Status: In conjunction with the ISCO work, groundwater monitoring well MW-400 was installed downgradient of MW4SR, and injection well IW-5 was installed upgradient of MW4SR. TCE was not detected in the soil and groundwater profiling data from MW-400, and TCE was detected at levels similar to MW4SR in groundwater at IW-5. GZA concluded that TCE detected at IW-5 and MW-4SR is likely due to TCE migration from the groundwater injection well, IW-3. Additional soil borings/groundwater monitoring wells will provide further data on TCE impact near the groundwater injection well IW-3.
- *Verification sampling of potential hot spots should also be conducted during the installation of injection and monitoring wells for in-situ chemical oxidation.*
- Status: TCE impact was evaluated during the installation of the ISCO injection wells and ISCO monitoring wells. As a follow-up, additional soil borings/groundwater monitoring wells will be installed to provide further data on the extent of capillary fringe impact.

## **VI. Five-Year Review Process**

**Administrative Components** - For the current report the Remedial Project Manager (RPM) established a review schedule. Its components included:

- Community Notification
- Document Review
- Data Review
- Site Inspections

- Five-Year Review Report Development and Review

**Community Notification** - Activities to involve the community in the five-year review process were initiated in August 2008 with a call to the Community Involvement Coordinator (CIC) for the Springfield site. A notice was published in the local newspaper (Tri County Times) on July 12, 2009. Since the notice was issued, no member of the community has voiced any interest or opinion concerning the five-year review process.

**Document Review** - This Five-Year Review included a review of the following documents:

- Enforcement documents (Administrative Order on Consent, Consent Decree, Statements of Work)
- Design documents (Remedial Design Investigation, Remedial Design Report)
- Decision documents (ROD, ROD Amendment, and ESD)
- Institutional Controls (Restrictive Covenants)
- Groundwater monitoring reports

**Data Review** - The RPM has reviewed the data submitted in the semi-annual Groundwater Monitoring Reports from 2004-2008. A table compiling the groundwater sampling results from the semi-annual monitoring events from July 1994 to November 2008 can be found in Attachment 2, and a map of the site well locations can be found in Attachment 3. A review of the groundwater sampling data shows that of the wells regularly sampled, only two consistently exceed the RAS for TCE (5ppb). These wells, MW-4SR and MW-105 are located within the fenced area of the Site. MW-105 is screened in a true “hot spot” and the locations for the pumping and injection wells were chosen to hydraulically force treated groundwater through the area of high contamination and move it toward the pumping well, where it can be removed and treated. The TCE concentrations in MW-105 range historically from 51 to 1600 ppb, and from December 2000 to the present concentrations show a steady decline. The TCE that occurs in MW-4SR is more problematic, and may be related to the liberation of TCE held in the vadose zone, which is periodically saturated by the injection of treated water at the injection well. The TCE concentrations in MW-4SR range historically from 2 to 100 ppb, and from June 2003 to present show a steady decline. EPA recommended that the PRPs investigate the potential for liberation of TCE from the vadose zone during the implementation of the ISCO work that was carried out from October 2005 to January 2006. The PRP’s contractor concluded that the TCE in groundwater at MW-4SR is likely due to migrating from the area near the injection well, IW-3, not the liberation of TCE held in the vadose zone. Historical trends for contaminant concentrations in MW-105 and MW-4SR can be reviewed in Attachment 4.

**Site Inspections** The RPM inspected the site on 03/16/2009, two months prior to Chrysler Corporation filing for bankruptcy. He was accompanied by the Site Project Manager and Site Geologist from MDEQ, the Remediation Specialist from Daimler Chrysler (the PRP), and the PRP’s Project Manager in charge of the Site. The extraction well, RW-1, was undergoing a well rehabilitation service call while the inspection was being conducted. The group also reviewed the site history and examined the groundwater pump-and-treat and SVE/air sparging systems,



confirming that the installations were functioning as designed and that the cover and fencing are intact and in good repair. The PRPs had agreed to install an additional monitoring well outside the fenced area and proximal to the injection well to ensure that groundwater injected after treatment wasn't causing contamination to migrate offsite, but this hadn't been done at the time of inspection. EPA will follow-up.

**Interviews** - Interviews with individuals beyond the five-year review project team were not conducted. Since the newspaper notice, no member of the community or any other individual voiced any interest in conducting an interview related to the five-year review.

## **VII Technical Assessment**

### Question A: Is the remedy functioning as intended by the decision documents?

**No** - A review of documents, ARARs, risk assumptions, and the results of the site inspection indicate that the remedy was functioning as intended by the 1990 ROD, as modified by the 1992 ESD and 1998 ROD Amendment, until Chrysler Corporation filed for bankruptcy, stopped funding the remedial action, and shut down the groundwater extraction and treatment system. The excavation and treatment of soils and the implementation of institutional controls have minimized the migration of contaminants to groundwater and prevented direct contact with contaminated media, but the ongoing component of the contaminant cleanup is containment and restoration by groundwater extraction and treatment. Operation and maintenance of the groundwater extraction and treatment system was minimally effective before the shutdown. EPA and MDEQ had called for optimization studies of the treatment systems and monitoring network, but now that O&M has ceased completely the remedy is clearly not functioning as intended, and EPA will exercise its authority under CERCLA to restore the remedial actions required by the ROD.

### Question B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of the remedy selection still valid?

**YES** - The exposure assumptions used to develop the Human Health Risk Assessment included both current exposures and potential future exposures. There have been no changes in the toxicity factors for the contaminants of concern that were used in the revised baseline risk assessment. These assumptions are considered to be conservative and reasonable in evaluating risk and developing risk-based cleanup levels. No changes to these assumptions or the cleanup levels developed from them are warranted, and there has been no change to the standardized risk assessment methodology that could affect the protectiveness of the remedy.

### Question C: Has any other information come to light that could call into question the protectiveness of the remedy?

**YES** – In addition to the shut down of the Site's treatment facilities, EPA and MDEQ had previously identified several deficiencies that required attention. These deficiencies included:

- Inadequate characterization of residual contamination
- Questionable effectiveness of the groundwater extraction system
- Questionable effectiveness of the Soil Vapor Extraction (SVE) system
- Questionable effectiveness of the Air Sparging system
- Questionable adequacy of the monitoring well network

### **Technical Assessment Summary**

The remedy has clearly not functioned as intended since the groundwater extraction and treatment system was shut down in July 2009. Despite the fact exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of the remedy selection are still valid, the restoration and optimization of site's treatment systems is critical. EPA will evaluate the viability of the remaining signatories to the 1998 CD and exercise its authority under CERCLA to restore the remedial actions required by the ROD.

## VIII. Issues

**Table 4: Issues**

<b>Issues</b>	<b>Affects Current Protectiveness (Y/N)</b>	<b>Affects Future Protectiveness (Y/N)</b>
Appropriate deed restrictions were placed on the portion of the property where soil contamination was located. Further evaluation is needed to determine if there are any off-site locations related to the ground water contaminant plume where institutional controls are necessary.	N	Y
The bankruptcy of Chrysler Corporation has called into question the continuity of operations at the site	N	Y
Previously identified deficiencies in the remedial action that include: <ul style="list-style-type: none"><li>• Inadequate characterization of residual contamination</li><li>• Questionable effectiveness of the groundwater extraction system</li><li>• Questionable effectiveness of the Soil Vapor Extraction (SVE) system</li><li>• Questionable effectiveness of the Air Sparging system</li><li>• Questionable adequacy of the monitoring well network</li></ul>	N	Y

## IX. Recommendations and Follow-up Actions

**Table 5: Recommendations and Follow-up Actions**

Issue	Recommendations and Follow-up Actions	Party Responsible	Oversight Agency	Milestone Date	Affects Protectiveness (Y/N)	
					Current	Future
Appropriate deed restrictions were placed on the portion of the property where soil contamination was located. Further evaluation is needed to determine if there are any off-site locations related to the ground water contaminant plume where institutional controls are necessary	Complete an Institutional Controls study for those areas of the site where contaminated ground water has migrated and implement institutional controls that ensure ground water is not consumed and there is no interference with the remedy.	PRPs	EPA	2/28/2010	N	Y
The bankruptcy of Chrysler Corporation has called into question the continuity of operations at the site	EPA will evaluate the viability of the remaining signatories to the 1998 Consent Decree (CD) and take all steps necessary to restore implementation of the remaining elements of the remedial action once viable PRPs are identified.	EPA	EPA	12/30/2009	N	Y
Previously identified deficiencies in the remedial action that include: <ul style="list-style-type: none"> <li>• Inadequate characterization of residual contamination</li> <li>• Questionable</li> </ul>	EPA will require that the necessary characterization and optimization work is completed once the remedial action has been restored	PRPs	EPA	6/30/2010	N	Y

Issue	Recommendations and Follow-up Actions	Party Responsible	Oversight Agency	Milestone Date	Affects Protectiveness (Y/N)	
					Current	Future
effectiveness of the groundwater extraction system • Questionable effectiveness of the Soil Vapor Extraction (SVE) system • Questionable effectiveness of the Air Sparging system • Questionable adequacy of the monitoring well network						

## **X. Protectiveness Statement**

The remedy is currently protective of human health and the environment in the short term because human exposure to contaminated media is under control. The progress toward long term protectiveness at the site was interrupted, however, by the May 2009 bankruptcy of Chrysler Corporation, which precipitated the shutdown of the groundwater extraction and treatment facility in July 2009. This shutdown does not represent an immediate threat to human health or the environment because extraction and treatment was for groundwater restoration and not intended as a containment mechanism. Nevertheless, the remedy must be fully functional and an Institutional Controls study must be completed before a long term protectiveness determination can be made. EPA is evaluating the viability of the remaining signatories to the 1998 Consent Decree (CD) and will take all steps necessary to restore the remedial action once the viable PRPs are notified.

## **XI. Next Review**

The next FYR for the Springfield Site will be required within five years of the signature date of this report, and that review will be conducted in 2014.

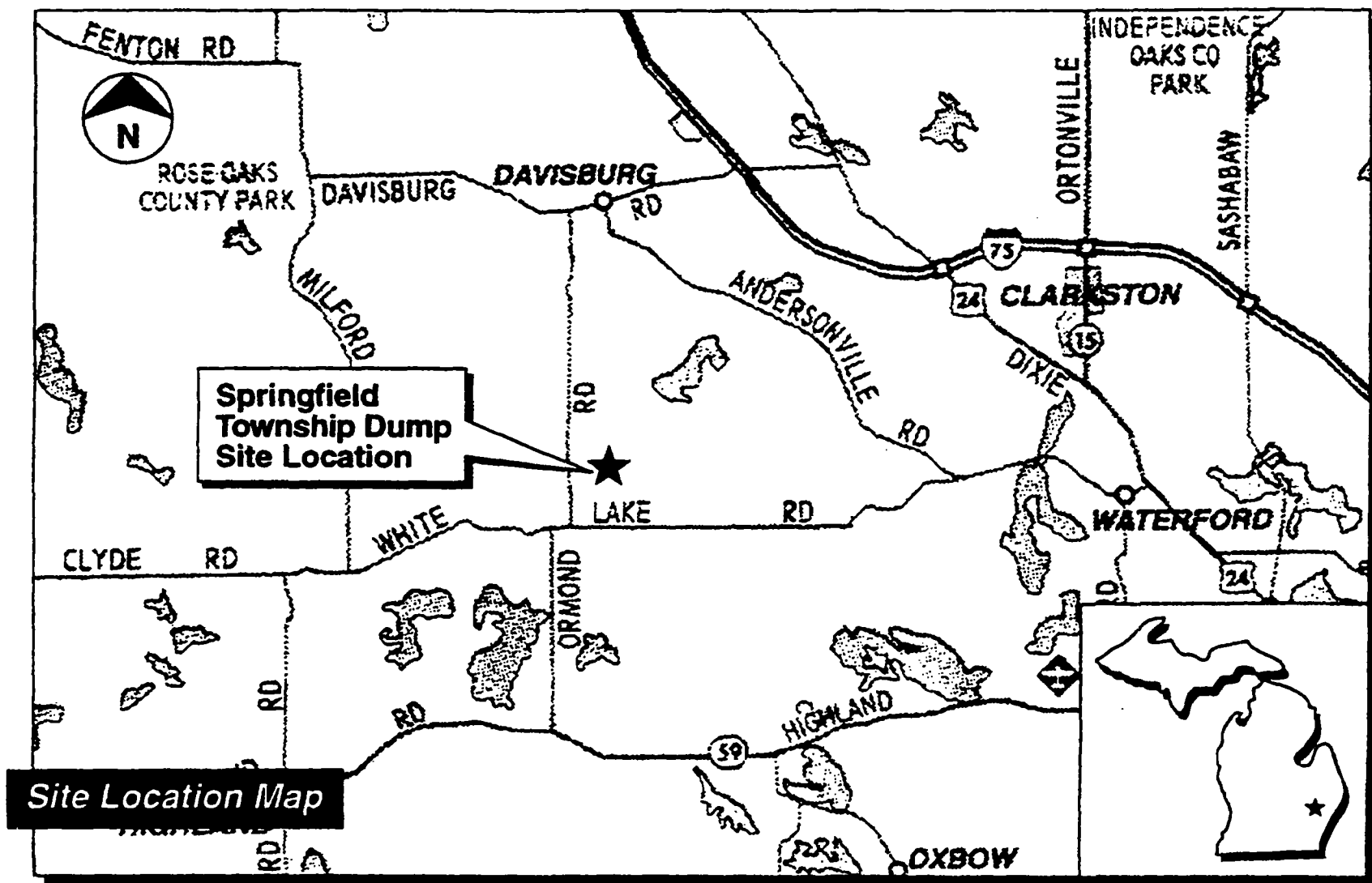
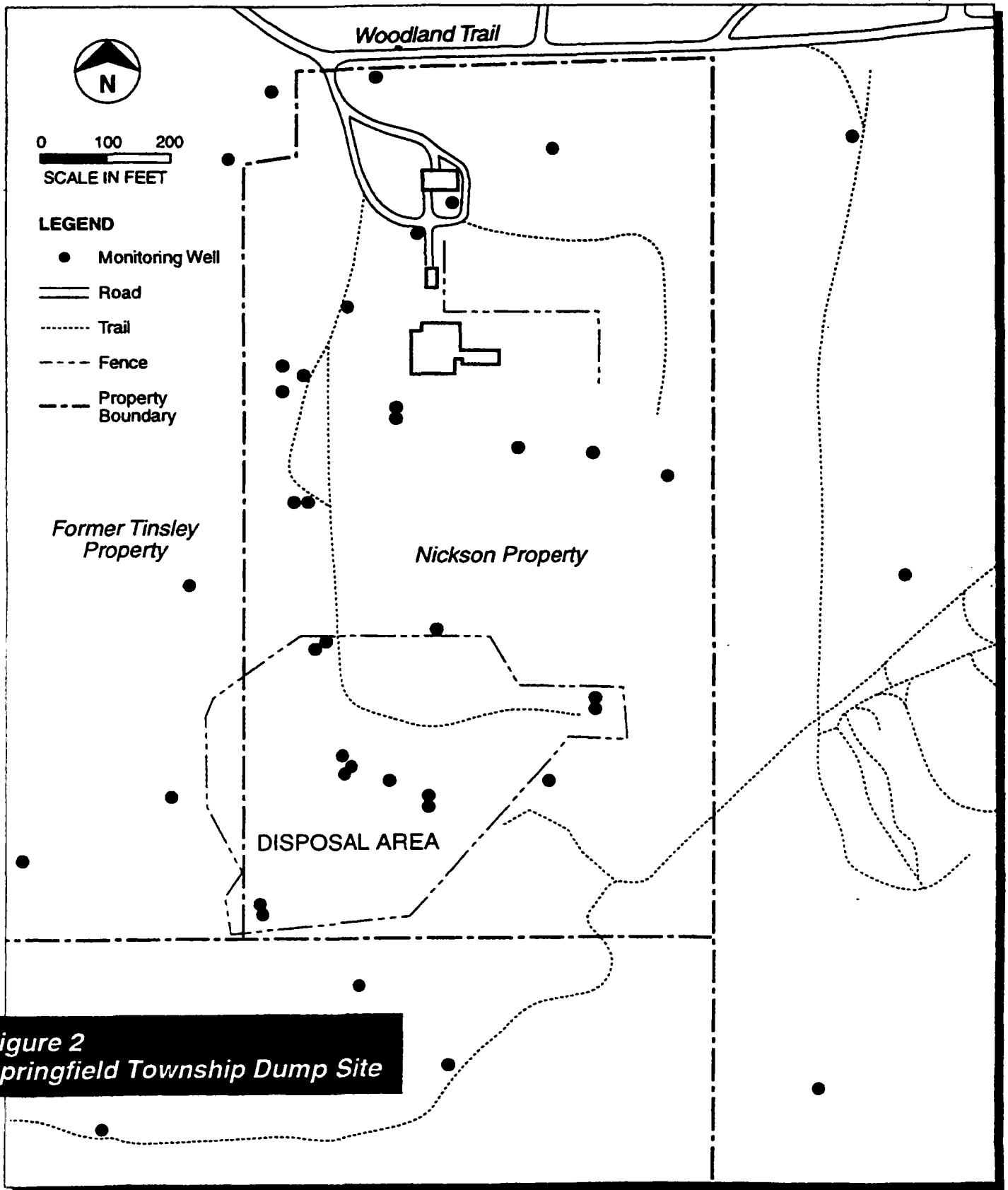


Figure 1



**Figure 2**  
**Springfield Township Dump Site**





Springfield Township Dump  
Oakland County, Michigan

EPA ID# MID980499966



Legend

- Restricted Land Use Area (1998) - Required and Implemented IC\*
- Fence

\* See Deed Restrictions (1998), Oakland County, MI for the restriction details

RPM: William Ryan

0 125 250  
Feet



Figure 3

Produced by Julie Schill  
U.S. EPA Region 5 on June 4, 2009  
Image Date: 2002

**Attachment 1**  
**Deed Restrictions**

\$ 9.00 MISCELLANEOUS RECORDING  
 \$ 2.00 REMONUMENTATION  
 24 NOV 98 2:00 P.M. RECEIPT# 458  
 PAID RECORDED - OAKLAND COUNTY  
 G. WILLIAM CADDELL  
 CLERK/REGISTER OF DEEDS

## DEED RESTRICTIONS

CARRINE NICKSON, a single woman, who resides at 12955 Woodland Trail, Davisburg, MI 48350, for and in consideration of receipt of the sum of Five Thousand Dollars (\$5,000.00) and other good and valuable consideration, hereby imposes restrictions on the following described real estate located within the Township of Springfield, County of Oakland, State of Michigan, described as

The South Five Hundred feet (500') of T4N, R8E, SEC 32 NW ¼ OF SW ¼  
 EXC W ½ of NW ¼ OF SW ¼

A portion of Parcel ID No.: 07-32-300-009

There shall be no use of the above-described property which would result in filling, grading, excavating, mining, drilling, building, storage or disposal of junk, debris, wastes, trash, inoperable vehicles or equipment, or other use or development which would disturb soils, subsoils, or groundwater, except for activities approved by the United States Environmental Protection Agency as part of required remedial action for this site.

The above-described property shall be owned, held, transferred, sold, conveyed, used and/or occupied subject to these restrictions.

These restrictions shall run with the land and shall be binding upon all persons having right, title or interest in any part of the described property. Any deed, lease or other transfer document will specifically refer to these restrictions, amendments or modifications, if any, by stating liber and pages of the Oakland County records in which they are recorded.

The United States of America, State of Michigan, Township of Springfield and/or other authorized representatives may enforce the restrictions set forth herein by legal action in a court of competent jurisdiction. Access over and through the described property is hereby granted to the United States of America, State of Michigan, Township of Springfield and/or other authorized representatives for the purpose of inspecting the property to insure compliance with, and allow enforcement of, these restrictions.

These restrictions shall not be amended, modified or terminated except by written instrument by and between the then current owner(s) of the property and the United States Environmental Protection Agency, Michigan Department of Environmental Quality and the Township of Springfield, or their successors.

63-124600

4

9.00  
 2.00  
 B

IN WITNESS WHEREOF, Carrine Nickson has caused these Deed Restrictions to be executed this 1st day of October, 1998.

WITNESS: Carol Ann Jones

Print Name: Carol Ann Jones

WITNESS: Barbara R. Hart

Print Name: Barbara R. Hart

Carrine Nickson  
CARRINE NICKSON

STATE OF MICHIGAN     )  
                                  ) SS:  
COUNTY OF OAKLAND    )

Before me, a Notary Public in and for said County and State, personally appeared CARRINE NICKSON, and she acknowledges the execution of the foregoing Deed Restrictions.

Witness my hand and Seal this 1st day of October, 1998.

My Commission Expires: 7-16-2001

Nancy C. Schleicher  
Notary Public  
NANCY C. Schleicher  
OAKLAND

Prepared by and return to:

Keith J. Lerminiaux  
Dickinson Wright PLLC  
500 Woodward Avenue, Suite 4000  
Detroit, MI 4826-3425

**Attachment 2**

**Summary of Groundwater  
Sampling Results  
7/7/94 – 11/11/08**

**SUMMARY OF GROUNDWATER SAMPLING RESULTS  
SPRINGFIELD TOWNSHIP SUPERFUND SITE**

Well Number	Sample Date	Sample I D Number	Concentration (µg/L)								AS <sup>3</sup>	LEAD <sup>3</sup>
			TOLUENE	TCE	1,1-DCE	1,1,1-TCA	1,1-DCA	CHLORO-BENZENE				
RAS			1,000	5	7	200	880	100	20	50		
MW-1DR	7-Jul-94	A4346903	< 1	< 1	< 1	< 1	49 J	< 1	< 3	< 2		
MW-1DR	5-Oct-94	940888-01	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	41	< 0.5 U	21.1	< 1 U		
MW-1DR	12-Jan-95	950020-06	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	49	< 0.50 U	16.5 J	< 1 U		
MW-1DR	16-Apr-95	950210-33	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	35	< 0.5 U	5.1 B	< 2 U		
MW-1DR DUP	16-Apr-95	950210-34	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	36	< 0.5 U	6.1 B	< 2 U		
MW-1DR	13-Jul-95	950488-07	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	29	< 0.5 U	16.6			
MW-1DR	11-Jan-96	960004-15	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	32	< 0.5 U	13.4	< 1 U		
MW-1DR	10-Jul-96	960535-06	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	19	< 0.5 U	16.4	< 2 U		
MW-1DR DUP	10-Jul-96	960535-08	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	22	< 0.5 U	16.5	< 2 U		
MW-1DR	16-Jan-97	WW2648212	< 0.05	< 0.05	< 0.05	< 0.04	15	< 0.05	17	0.7 J		
MW-1DR	12-Jul-97	WW2743054	< 0.5	< 0.5	< 0.5	< 0.5	17	< 0.5	13.2	< 2		
MW-1DR	15-Jan-98	WW2859267	< 0.5	< 0.5	< 0.5	< 0.5	14	< 0.5	17.7	< 2		
MW-1DR	11-Sep-98	85515-2	< 0.5	< 0.5	< 0.5	< 0.5	11	< 0.5	15	< 2		
MW-1DR	17-Mar-99	E218847	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3		
MW-1DR <sup>1</sup>	5-Oct-99	-	-	-	-	-	-	-	-	-		
MW-1DR	14-Mar-00	E245048	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3		
MW-1DR	10-Nov-00	265769	< 10	< 1	< 1	< 10	11	< 10	< 5	< 3		
MW-1DR	25-May-01	279738	< 10	< 1	< 1	< 10	11	< 10	14	< 3		
MW-1DR	15-Nov-01	293494	< 10	< 1	< 1	< 10	14	< 10	7.5	< 3		
MW-1DR DUP	15-Nov-01	293492	< 10	< 1	< 1	< 10	14	< 10	8	< 3		
MW-1DR	30-May-02	306699	< 10	1.3	< 1	< 10	12	< 10	16	< 3		
MW-1DR	6-Nov-02	319782	< 10	< 1	< 1	< 10	< 10	< 10	11	< 3		
MW-1DR	15-May-03	331718	< 10	< 1	< 1	< 10	11	< 10	18	< 3		
MW-1DR	6-Nov-03	348864	< 10	< 1	< 1	< 10	< 10	< 10	< 5	8.7		
MW-1DR DUP	6-Nov-03	348878	< 10	< 1	< 1	< 10	< 10	< 10	< 5	13.0		
MW-1DR	21-May-04	361828	< 10	< 1	< 1	< 10	< 10	< 10	< 5	3.7		
MW-1DR	9-Dec-04	378570	< 10	< 1	< 1	< 10	< 10	< 10	16	< 3.0		
MW-1DR	2-Sep-05	395142	< 10	< 1	< 1	< 10	< 10	< 10	12	< 3.0		
MW-1DR DUP	2-Sep-05	395143	< 10	< 1	< 1	< 10	< 10	< 10	12	< 3.0		
MW-1DR	14-Apr-06	0604274-03	< 1	< 1	< 1	< 1	8.3	< 1	11	3.2		
MW-1DR	6-Oct-06	0610230-13	< 1	< 1	< 1	< 1	6.2	< 1	-	-		
MW-1DR	31-Jan-07	0702048-03	-	-	-	-	-	-	14	5.2		
MW-1DR	24-Apr-07	070447-06	< 1	< 1	< 1	< 1	6.7	< 1	15	< 3.0		
MW-1DR	5-Nov-07	0711197-06	< 1	< 1	< 1	< 1	7.1	< 1	17	< 3		
MW-1DR	24-Apr-08	0804542-03	< 1	< 1	< 1	< 1	7.1	< 1	14	4		
MW-1DR	11-Nov-08	0811333-05	< 1	< 1	< 1	< 1	6.5	< 1	19	< 3		
MW-1SR	7-Jul-94	A4346902	< 1	1	< 1	12	8	< 1	< 3	2 J		
MW-1SR	5-Oct-94	940888-02	< 0.5 U	0.8	< 0.5 U	3	5	< 0.5 U	< 2 U	216		
MW-1SR	12-Jan-95	950020-04	< 0.5 U	< 0.5 U	< 0.5 U	1	< 0.5 U	< 0.5 U	< 2.0 JU	< 1 U		
MW-1SR	15-Apr-95	950210-26	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2.0 U	< 2 U		
MW-1SR	13-Jul-95	950488-08	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	7	< 0.5 U	< 2.0 U	< 2 U		
MW-1SR	9-Jan-96	960004-05	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	7	< 0.5 U	< 2 U	< 1 U		
MW-1SR	10-Jul-96	960535-05	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	10	< 0.5 U	5.2 B	< 2 U		
MW-1SR DUP	16-Jan-97	WW2648216	0.06 J	< 0.05	< 0.05	< 0.04	3.7	< 0.05	4.8 J	1.7 J		
MW-1SR	16-Jan-97	WW2648219	< 0.05	< 0.05	< 0.05	< 0.04	3.9	< 0.05	< 1.7	1.4 J		
MW-1SR	12-Jul-97	WW2743053	< 0.5	< 0.5	< 0.5	< 0.5	11	< 0.5	< 2	3.3		
MW-1SR DUP	12-Jul-97	WW2743093	< 0.5	< 0.5	< 0.5	< 0.5	11	< 0.5	< 2	4.7		
MW-1SR	15-Jan-98	WW2859266	< 0.5	< 0.5	< 0.5	< 0.5	14	< 0.5	< 2	< 2		
MW-1SR DUP	15-Jan-98	WW2859303	< 0.5	< 0.5	< 0.5	< 0.5	14	< 0.5	< 2	< 2		
MW-1SR	11-Sep-98	85515-1	< 0.5	< 0.5	< 0.5	< 0.5	12	< 0.5	< 2	2.5		
MW-1SR DUP	11-Sep-98	85515-30	< 0.5	< 0.5	< 0.5	< 0.5	13	< 0.5	3.2	5.2		
MW-1SR	17-Mar-99	E218845	< 10	< 1	< 1	< 10	11	< 10	< 5	< 3		
MW-1SR <sup>1</sup>	5-Oct-99	-	-	-	-	-	-	-	-	-		

**SUMMARY OF GROUNDWATER SAMPLING RESULTS  
SPRINGFIELD TOWNSHIP SUPERFUND SITE**

Well Number	Sample Date	Sample ID Number	Concentration (µg/L)							
			TOLUENE	TCE	1,1-DCE	1,1,1-TCA	1,1-DCA	CHLORO-BENZENE	AS <sup>3</sup>	LEAD <sup>3</sup>
RAS			1000	5	7	200	880	100	20	50
MW-3D	8-Jul-94	A4349201	< 1	1	< 1	< 1	< 1	< 1	< 3	35
MW-3D DUP	8-Jul-94	A4349201	0.1 J	1	< 1	< 1	< 1	< 1	< 3	28
MW-3D	5-Oct-94	940888-03	< 0.5 U	2	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	< 1.6 U
MW-3D	12-Jan-95	950020-07	< 0.5 U	1	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 JU	10.7
MW-3D	15-Apr-95	950210-28	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	15.6
MW-3D DUP	15-Apr-95	950210-27	< 0.5 U	0.6	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	18.4
MW-3D	13-Jul-95	950488-01	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	4.3
MW-3D	11-Jan-96	960004-14	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	4.8
MW-3D DUP	11-Jan-96	960004-16	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	3.6
MW-3D	10-Jul-96	960535-02	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	4.6 B	2.5
MW-3D	17-Jan-97	WW2648174	< 0.05	< 0.05	< 0.05	< 0.04	< 0.04	< 0.05	< 1.7	12.9
MW-3D DUP	17-Jan-97	WW2648178	0.08 J	< 0.05	< 0.05	< 0.04	< 0.04	< 0.05	< 1.7	15.0
MW-3D	12-Jul-97	WW2743056	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2	2.3
MW-3D DUP	12-Jul-97	WW2743094	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2	7.78
MW-3D	15-Jan-98	WW2859269	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2	3.7
MW-3D DUP	15-Jan-98	WW2859304	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 2
MW-3D	11-Sep-98	85515-4	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2	4
MW-3D DUP	11-Sep-98	85515-31	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.9	7.5
MW-3D	18-Mar-99	E218849	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-3D	6-Oct-99	E234151	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-3D	14-Mar-00	E245046	< 10	< 1	< 1	< 10	< 10	< 10	< 5	21
MW-3D	8-Nov-02	320323	< 10	< 1	< 1	< 10	< 10	< 10	< 5	9.2
MW-3D DUP	8-Nov-02	320324	< 10	< 1	< 1	< 10	< 10	< 10	< 5	8.9
MW-3D	14-May-03	331555	< 10	< 1	< 1	< 10	< 10	< 10	< 5	7.1
MW-3D	18-May-04	361829	< 10	< 1	< 1	< 10	< 10	< 10	< 5	13.0
MW-3D	7-Sep-05	395145	< 10	< 1	< 1	< 10	< 10	< 10	< 5	5.4
MW-3D	16-Jan-06	-	-	-	-	-	-	-	< 5	35
MW-3D	18-Apr-06	0604326-05	< 1	< 1	< 1	< 1	< 1	< 1	< 5	16
MW-3D	5-Oct-06	0610230-09	< 1	< 1	< 1	< 1	< 1	< 1	-	-
MW-3D	31-Jan-07	0702048-01	-	-	-	-	-	-	< 5	11
MW-3D	23-Apr-07	0704477-05	< 1	< 1	< 1	< 1	< 1	< 1	< 5	5
MW-3D	5-Nov-07	0711197-02	< 1	< 1	< 1	< 1	< 1	< 1	< 5	12.0
MW-3D	24-Apr-08	0804542-06	< 1	< 1	< 1	< 1	< 1	< 1	< 5	< 3
MW-3D	11-Nov-08	0811333-04	< 1	< 1	< 1	< 1	< 1	< 1	< 5	27
MW-3S	7-Jul-94	A4346905	< 1	< 1	< 1	8	8	< 1	< 3	36
MW-3S	5-Oct-94	940888-04	< 0.5 U	< 0.5 U	< 0.5 U	15	11	< 0.5 U	< 2 U	28.5
MW-3S	12-Jan-95	950012-21	< 0.5 U	< 0.5 U	< 0.5 U	18	10	< 0.5 U	< 2 U	45.7
MW-3S DUP	12-Jan-95	950012-20	< 0.5 U	< 0.5 U	< 0.5 U	14	8	< 0.5 U	< 2 U	65.4
MW-3S	15-Apr-95	950210-22	< 0.5 U	< 0.5 U	< 0.5 U	18	7	< 0.5 U	< 2 U	38.5
MW-3S	13-Jul-95	950488-01	< 0.5 U	< 0.5 U	< 0.5 U	15	7	< 0.5 U	< 2 U	18.6
MW-3S	11-Jan-96	960004-19	< 0.5 U	< 0.5 U	3	15	7	< 0.5 U	< 2 U	17.1
MW-3S	10-Jul-96	960535-01	< 0.5 U	< 0.5 U	< 0.5 U	26	5	< 0.5 U	2.8 B	31.5
MW-3S	16-Jan-97	WW2648217	< 0.05	0.1 J	0.05 J	17	4.9	< 0.05	< 1.7	4.2
MW-3S	12-Jul-97	WW2743055	< 0.5	< 0.5	< 0.5	13	4.2	< 0.5	< 2	36.3
MW-3S	15-Jan-98	WW2648217	< 0.5	< 0.5	< 0.5	16	4.9	< 0.5	< 2	14.2
MW-3S	11-Sep-98	85515-3	< 0.5	< 0.5	< 0.5	14	2.6	< 0.5	2.1	29
MW-3S	18-Mar-99	E218851	< 10	< 1	< 1	17	< 10	< 10	< 5	< 3
MW-3S	6-Oct-99	E234152	< 10	< 1	< 1	15	< 10	< 10	< 5	5.5
MW-3S	14-Mar-00	E245045	< 10	< 1 J	< 1	19	< 10	< 10	< 5	< 3
MW-3S	10-Nov-00	265770	< 10	< 1	< 1	16	< 10	< 10	< 5	6.1
MW-3S	25-May-01	279373	< 10	< 1	< 1	14	< 10	< 10	< 5	23
MW-3S	15-Nov-01	293490	< 10	< 1	< 1	17	< 10	< 10	< 5	< 3
MW-3S	24-May-02	306690	< 10	< 1	< 10	16	< 10	< 10	< 5	< 3
MW-3S	8-Nov-02	320322	< 10	< 1	< 10	13	< 10	< 10	< 5	20
MW-3S	14-May-03	331554	< 10	< 1	< 1	11	< 10	< 10	< 5	16
MW-3S	6-Nov-03	348866	< 10	< 1	< 10	< 10	< 10	< 10	< 5.0	20
MW-3S	18-May-04	361830	< 10	< 1	< 10	13	< 10	< 10	< 5.0	12
MW-3S DUP	18-May-04	361847	< 10	< 1	< 10	19	< 10	< 10	< 5.0	12
MW-3S	14-Dec-04	379134	< 10	< 1	< 1	< 10	< 10	< 10	< 5.0	< 3
MW-3S DUP	14-Dec-04	379135	< 10	< 1	< 1	< 10	< 10	< 10	< 5.0	< 3
MW-3S	7-Sep-05	395144	< 10	< 1	< 1	13	< 10	< 10	< 5.0	< 3.0
MW-3S	13-Jan-06	-	-	-	-	-	-	-	< 5.0	14
MW-3S	18-Apr-06	0604326-04	< 1	< 1	< 1	14	< 1	< 1	< 5.0	9
MW-3S	5-Oct-06	0610230-08	< 1	< 1	< 1	13	< 1	< 1	-	-
MW-3S	31-Jan-07	0702048-02	-	-	-	-	-	-	< 5.0	8
MW-3S	23-Apr-07	070477-04	< 1	< 1	< 1	13	< 1	< 1	< 5.0	4
MW-3S	5-Nov-07	0711197-01	< 1	< 1	< 1	14	< 1	< 1	< 5.0	8.2
MW-3S	25-Apr-08	0804542-07	< 1	< 1	< 1	9.0	< 1	< 1	< 5.0	25
MW-3S	11-Nov-08	0811333-03	< 1	< 1	< 1	8.5	< 1	< 1	< 5.0	16

**SUMMARY OF GROUNDWATER SAMPLING RESULTS  
SPRINGFIELD TOWNSHIP SUPERFUND SITE**

Well Number	Sample Date	Sample I.D. Number	Concentration (µg/L)								AS <sup>3</sup>	LEAD <sup>5</sup>
			TOLUENE	TCE	1,1-DCE	1,1,1-TCA	1,1-DCA	CHLORO-BENZENE				
RAS			1,000	5	7	200	880	100		20		50
MW-4DR	8-Jul-94	A4349203	< 1	1	< 1	0.4 J	< 1	< 1	< 3		11	I
MW-4DR	5-Oct-94	940888-05	< 0.5 U	< 0.5 U	< 0.5 U	0.4 J	< 0.5 U	< 0.5 U	< 2 U	< 1.1 U		
MW-4DR	12-Jan-95	950020-02	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 JU	5.5		
MW-4DR	15-Apr-95	950210-24	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	16.7		
MW-4DR	13-Jul-95	950488-04	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	12		
MW-4DR	11-Jan-96	960004-18	< 0.5 U	< 0.5 U	< 0.5 U	2	< 0.5 U	< 0.5 U	< 2 U	9.6		
MW-4DR	10-Jul-96	960535-11	< 0.5 U	< 0.5 U	< 0.5 U	1	< 0.5 U	< 0.5 U	4.8 B	8.4		
MW-4DR	17-Jan-97	WW2648175	< 0.05	< 0.05	< 0.05	1.7	0.46 J	< 0.05	< 1.7	24.7		
MW-4DR	12-Jul-97	WW2743058	< 0.5	< 0.5	< 0.5	2.4	0.55	< 0.5	< 2	33		
MW-4DR	15-Jan-98	WW2859271	< 0.5	< 0.5	< 0.5	4	0.86	< 0.5	< 2	18.8		
MW-4DR	11-Sep-98	85515-6	< 0.5	< 0.5	< 0.5	5.9	< 0.5	< 0.5	< 2	20		
MW-4DR	17-Mar-99	E218844	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3		
MW-4DR DUP	17-Mar-99	E218845	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3		
MW-4DR	5-Oct-99	E234139	< 10	< 1	< 1	< 10	< 10	< 10	< 5	7		
MW-4DR	31-May-01	280079	< 10	< 1	< 1	10	< 10	< 10	5.2	576 <sup>3</sup>		
MW-4DR	16-Nov-01	293497	< 10	< 1	< 1	< 10	< 10	< 10	< 5	25		
MW-4DR	29-May-02	306694	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3		
MW-4DR	7-Nov-02	319784	< 10	< 1	< 1	< 10	< 10	< 10	< 5	20		
MW-4DR	15-May-03	331858	< 10	< 1	< 1	20	< 10	< 10	< 5	52		
MW-4DR	4-Nov-03	348873	< 10	< 1	< 1	19	< 10	< 10	< 5.0	27		
MW-4DR DUP	4-Nov-03	348876	< 10	< 1	< 1	17	< 10	< 10	< 5.0	29		
MW-4DR	21-May-04	361831	< 10	< 1	< 1	18	< 10	< 10	< 5.0	7		
MW-4DR	9-Dec-04	378575	< 10	< 1	< 1	20	< 10	< 10	< 5.0	40		
MW-4DR	1-Sep-05	395093	< 10	< 1	< 1	17	< 10	< 10	< 5.0	33		
MW-4DR	14-Apr-06	0604274-04	1.3	< 1	< 1	< 1	3.7	< 1	< 5.0	23		
MW-4DR	3-Oct-06	0610230-05	< 1	< 1	< 1	< 1	3.7	< 1	-	-		
MW-4DR	31-Jan-07	0702048-04	-	-	-	-	-	-	< 5.0	40		
MW-4DR	24-Apr-07	0704477-07	< 1	< 1	< 1	< 1	2.2	< 1	< 5.0	48		
MW-4DR	8-Nov-07	0711252-01	< 1	< 1	< 1	18	< 1	< 1	< 5.0	180		
MW-4DR	25-Apr-08	0804542-10	< 1	< 1	< 1	11	< 1	< 1	< 5.0	19		
MW-4DR	12-Nov-08	0811333-08	< 1	< 1	< 1	14	< 1	< 1	< 5.0	<3.0 <sup>5</sup>		
MW-4SR	7-Jul-94	A4346901	< 1	2	< 1	15	< 1	< 1	< 3	333 J		
MW-4SR	5-Oct-94	940888-06	< 0.5 U	7	< 0.5 U	18	< 0.5 U	< 0.5 U	< 2 U	< 1 U		
MW-4SR	12-Jan-95	950020-01	< 0.5 U	12	< 0.5 U	24	< 0.5 U	< 0.5 U	< 2 JU	33.4		
MW-4SR DUP	12-Jan-95	950020-03	< 0.5 U	17	< 0.5 U	36	< 0.5 U	< 0.5 U	< 2 JU	36.3		
MW-4SR	15-Apr-95	950210-23	< 0.5 U	12	< 0.5 U	23	< 0.5 U	< 0.5 U	< 2 U	16.6		
MW-4SR	13-Jul-95	950488-04	< 0.5 U	13	< 0.5 U	19	< 0.5 U	0.9	< 2 U	21.7		
MW-4SR	11-Jan-96	960004-17	< 0.5 U	33	< 0.5 U	27	< 0.5 U	< 0.5 U	< 2 U	2.7 B		
MW-4SR	10-Jul-96	960535-10	< 0.5 U	29	< 0.5 U	21	< 0.5 U	< 0.5 U	2.7 B	8.1		
MW-4SR	16-Jan-97	WW2648218	< 0.05	35	< 0.05	21	0.16 J	< 0.05	< 1.7	11.3		
MW-4SR	12-Jul-97	WW2743057	< 0.5	50	0.53	23	< 0.5	< 0.5	< 2	8.9		
MW-4SR	15-Jan-98	WW2859270	< 0.5	41	< 0.5	17	< 0.5	< 0.5	< 2	14.2		
MW-4SR	11-Sep-98	85515-5	< 0.5	56	< 0.5	18	< 0.5	< 0.5	< 2	8.6		
MW-4SR	17-Mar-99	E218846	< 10	70	< 1	< 10	< 10	< 10	< 5	3.8		
MW-4SR <sup>1</sup>	5-Oct-99	-	-	-	-	-	-	-	-	-		
MW-4SR	30-May-01	280078	< 10	71	< 1	13	< 10	< 10	< 5	188 <sup>3</sup>		
MW-4SR	16-Nov-01	293495	< 10	61	< 1	15	< 10	< 10	< 5	16		
MW-4SR DUP	16-Nov-01	293496	< 10	58	< 1	14	< 10	< 10	< 5	17		
MW-4SR	29-May-02	306695	< 10	67	< 1	< 10	< 10	< 10	< 5	< 3		
MW-4SR DUP	29-May-02	306701	< 10	54	< 1	< 10	< 10	< 10	< 5	< 3		
MW-4SR	7-Nov-02	319783	< 50	66	< 50	< 50	< 50	< 50	< 5	< 3		
MW-4SR	15-May-03	331720	< 10	100	< 5	22	< 10	< 10	< 5	6.1		
MW-4SR DUP	15-May-03	331721	< 10	100	< 5	22	< 10	< 10	< 5	5.8		
MW-4SR	4-Nov-03	348867	< 10	67	< 2	14	< 10	< 10	< 5.0	3.6		
MW-4SR	21-May-04	361832	< 10	60	< 5	12	< 10	< 10	< 5.0	3.2		
MW-4SR	9-Dec-04	378577	< 10	58	< 1	< 10	< 10	< 10	< 5.0	14.0		
MW-4SR	1-Sep-05	395094	< 10	64	< 5	< 10	< 10	< 10	< 5.0	< 3.0		
MW-4SR	18-Nov-05	-	-	58	-	-	-	-	-	-		
MW-4SR DUP	18-Nov-05	-	-	59	-	-	-	-	-	-		
MW-4SR	14-Dec-05	-	-	71	-	-	-	-	-	-		
MW-4SR DUP	14-Dec-05	-	-	69	-	-	-	-	-	-		
MW-4SR	12-Jan-06	-	-	9.5	-	-	-	-	-	-		
MW-4SR	13-Apr-06	060427-02	< 1	67	< 1	4.4	< 1	< 1	< 5	17		
MW-4SR	3-Oct-06	0610230-03	< 1	49	< 1	4.1	< 1	< 1	-	-		
MW-4SR DUP	3-Oct-06	0702048-05	-	-	-	-	-	-	< 5	14		
MW-4SR	2-Feb-07	0610230-04	< 1	48	< 1	4.2	< 1	< 1	-	-		
MW-4SR	24-Apr-07	0704477-10	< 1	50	< 1	2.8	< 1	< 1	< 5	7.3		
MW-4SR	6-Nov-07	0711197-11	< 1	44	< 1	2.2	< 1	< 1	< 5	15		
MW-4SR	24-Apr-08	0804542-05	< 1	32	< 1	< 1	< 1	< 1	< 5	45		
MW-4SR	12-Nov-08	0811333-07	6.1	20	< 1	< 1	< 1	< 1	< 5	10		
MW-4SR DUP	12-Nov-08	0811333-16	6	21	< 1	< 1	< 1	< 1	< 5	11		



**SUMMARY OF GROUNDWATER SAMPLING RESULTS  
SPRINGFIELD TOWNSHIP SUPERFUND SITE**

Well Number	Sample Date	Sample I D Number	Concentration (µg/L)								AS <sup>3</sup>	LEAD <sup>3</sup>
			TOLUENE	TCE	1,1-DCE	1,1,1-TCA	1,1-DCA	CHLORO-BENZENE	AS <sup>3</sup>	LEAD <sup>3</sup>		
RAS			1,000	5	7	200	880	100	20	50		
MW-5	6-Jul-94	A4347216	< 1	< 1	< 1	< 1	< 1	< 1	< 3	J	4	
MW-5	4-Oct-94	940888-07	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2	U	20	
MW-5	12-Jan-95	950012-07	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2	U	< 6	U
MW-5	14-Apr-95	950210-13	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2	U	3.1	
MW-5	11-Jul-95	950474-01	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2	U	5.5	
MW-5	10-Jan-96	960014-04	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2	U	4.2	
MW-5	9-Jul-96	960530-03	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	4.1	B	< 2	U
MW-5	16-Jan-97	WW2648204	0.06 J	< 0.05 J	< 0.05	< 0.04	< 0.04	< 0.05	< 1.7		5.2	
MW-5	11-Jul-97	WW2743078	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2		7.2	
MW-5	15-Jan-98	WW2859274	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2		< 2	
MW-5	11-Sep-98	85515-7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2		8.4	
MW-5	16-Mar-99	E218836	< 10	< 1	< 1	< 10	< 10	< 10	< 5		< 3	
MW-5	6-Oct-99	E234150	< 10	< 1	< 1	< 10	< 10	< 10	< 5		3.7	
MW-5	14-Mar-00	E245043	< 10	< 1	< 1	< 10	< 10	< 10	< 5		< 3	
MW-5	13-Nov-01	293145	< 10	< 1	< 1	< 10	< 10	< 10	< 5		5.4	
MW-5	8-Nov-02	320321	< 10	< 1	< 1	< 10	< 10	< 10	< 5		22	
MW-5	14-May-03	331853	< 10	< 1	< 1	< 10	< 10	< 10	< 5		4.1	
MW-5	19-May-04	361833	< 10	< 1	< 1	< 10	< 10	< 10	< 5		< 3.0	
MW-5 DUP	19-May-04	361848	< 10	< 1	< 1	< 10	< 10	< 10	< 5		3.4	
MW-5	30-Aug-05	395084	< 10	< 1	< 1	< 10	< 10	< 10	< 5		9.0	
MW-5 DUP	30-Aug-05	395085	< 10	< 1	< 1	< 10	< 10	< 10	< 5		11	
MW-5	7-Apr-06	0604127-04	< 1	< 1	< 1	< 1	< 1	< 1	< 5		< 3	
MW-5	25-Apr-07	0705020-04	< 1	< 1	< 1	< 1	< 1	< 1	< 5		3.6	
MW-5	22-Apr-08	0804511-02	< 1	< 1	< 1	< 1	< 1	< 1	< 5		110	
MW-8R	11-Jul-94	A4355609	< 1	< 1	< 1	< 1	< 1	< 1	< 3		60	
MW-8R	4-Oct-94	940888-08	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2	U	37	
MW-8R	12-Jan-95	950012-13	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2	U	87	
MW-8R	14-Apr-95	950210-06	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2	U	44.4	
MW-8R	12-Jul-95	950482-06	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2	U	33.5	
MW-8R	9-Jan-96	960004-10	< 0.5 U	< 0.5 U	< 0.5 U	5	< 0.5 U	< 0.5 U	< 2	U	< 1	U
MW-8R	10-Jul-96	960530-16	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	5.1	B	14.3	
MW-8R	16-Jan-97	WW2648211	< 0.05	< 0.05	< 0.05	< 0.04	< 0.04	< 0.05	< 1.7		34.5	
MW-8R	11-Jul-97	WW2743079	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2		36.1	
MW-8R	15-Jan-98	WW2859275	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2		50.4	
MW-8R	11-Sep-98	85515-8	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2		78	
MW-8R	18-Mar-99	E218848	< 10	< 1	< 1	< 10	< 10	< 10	< 5		18	
MW-8R	6-Oct-99	E234154	< 10	< 1	< 1	< 10	< 10	< 10	< 5		12	
MW-8R DUP	6-Oct-99	E234155	< 10	< 1	< 1	< 10	< 10	< 10	< 5		21	
MW-8R	13-Mar-00	E245030	< 10	< 1	< 1	< 10	< 10	< 10	< 5		14	
MW-8R	9-Nov-00	265771	< 10	< 1	< 1	< 10	< 10	< 10	< 5		17	
MW-8R	22-May-01	279726	< 10	< 1	< 1	< 10	< 10	< 10	< 5		46	
MW-8R	19-Nov-01	293499	< 10	< 1	< 1	< 10	< 10	< 10	< 5		4.2	
MW-8R	28-May-02	306692	< 10	< 1	< 1	< 10	< 10	< 10	< 5		< 3	
MW-8R DUP	28-May-02	306702	< 10	< 1	< 1	< 10	< 10	< 10	< 5		< 3	
MW-8R	7-Nov-02	319785	< 10	< 1	< 1	< 10	< 10	< 10	< 5		< 3	
MW-8R	15-May-03	331856	< 10	< 1	< 1	< 10	< 10	< 10	< 5		8.0	
MW-8R	4-Nov-03	348874	< 10	< 1	< 1	< 10	< 10	< 10	< 5		< 3	
MW-8R	21-May-04	361834	< 10	< 1	< 1	< 10	< 10	< 10	< 5		3.9	
MW-8R	14-Dec-04	379131	< 10	< 1	< 1	< 10	< 10	< 10	< 5		3.3	
MW-8R	1-Sep-05	395089	< 10	< 1	< 1	< 10	< 10	< 10	< 5		< 3	
MW-8R	12-Apr-06	0604216-03	< 1	< 1	< 1	< 1	< 1	< 1	< 5		4.6	
MW-8R DUP	12-Apr-06	0604216-05	< 1	< 1	< 1	< 1	< 1	< 1	< 5		5.0	
MW-8R	9-Oct-06	0610230-15	< 1	< 1	< 1	< 1	< 1	< 1	-		-	
MW-8R	24-Apr-07	0704477-11	< 1	< 1	< 1	< 1	< 1	< 1	< 5.0		< 3.0	
MW-8R	6-Nov-07	0711197-10	< 1	< 1	< 1	< 1	< 1	< 1	< 5		11	
MW-8R	24-Apr-08	0804542-12	< 1	< 1	< 1	< 1	< 1	< 1	< 5		< 3	
MW-8R	13-Nov-08	0811333-12	1.1	< 1	< 1	< 1	< 1	< 1	< 5		5	

**SUMMARY OF GROUNDWATER SAMPLING RESULTS  
SPRINGFIELD TOWNSHIP SUPERFUND SITE**

Well Number	Sample Date	Sample I.D. Number	Concentration (µg/L)								AS <sup>3</sup>	LEAD <sup>1</sup>
			TOLUENE	TCE	1,1-DCE	1,1,1-TCA	1,1-DCA	CHLORO-BENZENE				
RAS			1,000	5	7	200	880	100			20	50
MW-9AR	11-Jul-94	A4355603	< 1	< 1	< 1	< 1	< 1	< 1		< 3		< 2
MW-9AR	4-Oct-94	940888-09	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U		< 2 U		1 B
MW-9AR	12-Jan-95	950012-11	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U		< 1 U		< 2 U
MW-9AR	14-Apr-95	950210-01	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U		< 2 U		< 2 U
MW-9AR	12-Jul-95	950482-11	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U		< 2 U		< 2 U
MW-9AR	10-Jan-96	960014-11	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U		< 2 U		< 1 U
MW-9AR	10-Jul-96	960530-17	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U		3 B		< 2 U
MW-9AR	16-Jan-97	WW2648207	< 0.05	< 0.05	< 0.05	< 0.04	< 0.04	< 0.05		< 1.7		1 J
MW-9AR	11-Jul-97	WW2743043	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 2		< 2
MW-9AR	14-Jan-98	WW2859276	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		< 2		< 2
MW-9AR	11-Sep-98	85515-9	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		3.1		< 2
MW-9AR	16-Mar-99	E218834	< 10	< 1	< 1	< 10	< 10	< 10		< 5		< 3 J
MW-9AR DUP	16-Mar-99	E218835	< 10	< 1	< 1	< 10	< 10	< 10		< 5		< 3
MW-9AR	5-Oct-99	E234149	< 10	< 1	< 1	< 10	< 10	< 10		< 5		< 3
MW-9AR	13-Mar-00	E245028	< 10	< 1	< 1	< 10	< 10	< 10		< 5		< 3
MW-9AR DUP	13-Mar-00	E245029	< 10	< 1	< 1	< 10	< 10	< 10		< 5		< 3
MW-9AR	9-Nov-00	265784	< 10	< 1	< 1	< 10	< 10	< 10		< 5		< 3
MW-9AR	14-Nov-01	293487	< 10	< 1	< 1	< 10	< 10	< 10		< 5		< 3
MW-9AR	6-Nov-02	319786	< 10	< 1	< 1	< 10	< 10	< 10		< 5		< 3
MW-9AR	14-May-03	331854	< 10	< 1	< 1	< 10	< 10	< 10		< 5		< 3
MW-9AR	19-May-04	361835	< 10	< 1	< 1	< 10	< 10	< 10		< 5		6
MW-9AR	2-Sep-05	395138	< 10	< 1	< 1	< 10	< 10	< 10		< 5		< 3
MW-9AR	6-Apr-06	0604127-01	< 1	< 1	< 1	< 1	< 1	< 1		< 5		< 3
MW-9AR	26-Apr-07	0705020-06	< 1	< 1	< 1	< 1	< 1	< 1		< 5		11
MW-9AR	22-Apr-08	0804511-03	< 1	< 1	< 1	< 1	< 1	< 1		< 5		< 3
MW-11	6-Jul-94	A4347217	0.04 J	< 1 J	1 J	110 J	0.7 J	< 1 J		< 3 J		23 J
MW-11	4-Oct-94	940888-10	< 0.5 U	< 0.5 U	1	120	1	< 0.5 U		< 2 U		59
MW-11 DUP	4-Oct-94	940888-12	< 0.5 U	< 0.5 U	2	130	2	< 0.5 U		< 2 U		65
MW-11	12-Jan-95	950012-06	< 0.5 U	< 0.5 U	2	160	2	< 0.5 U		< 2 U		21
MW-11	15-Apr-95	950210-19	< 0.5 U	< 0.5 U	1	120	< 0.5 U	< 0.5 U		< 2 U		52.3
MW-11	11-Jul-95	950474-06	< 0.5 U	< 0.5 U	1	110	2	< 0.5 U		< 2 U		18.9
MW-11	9-Jan-96	960004-11	< 0.5 U	< 0.5 U	1	98	1	< 0.5 U		< 2 U		21.8
MW-11	9-Jul-96	960530-06	< 0.5 U	< 0.5 U	1	160	< 0.5 U	< 0.5 U		4.8 B		5.4
MW-11	15-Jan-97	WW2648164	< 0.05	< 0.05	1.3	120	0.7	< 0.05		< 1.7		27
MW-11	11-Jul-97	WW2743044	< 0.5	< 0.5	1.7	110	0.91	< 0.5		< 2		41.4
MW-11	13-Jan-98	WW2859277	< 0.5	< 0.5	< 0.5	110	0.57	< 0.5		< 2		24.5
MW-11	11-Sep-98	85515-10	< 0.5	< 0.5	< 0.5	37	< 0.5	< 0.5		2.2		44
MW-11	17-Mar-99	E218837	< 20	< 2	< 2	110	< 20	< 20		< 5		< 3
MW-11	6-Oct-99	E234153	< 10	< 1	< 1	120	< 10	< 10		< 5		< 3
MW-11	14-Mar-00	E245039	< 20	< 2	< 2	110	< 20	< 20		< 5		7
MW-11 DUP	14-Mar-00	E245040	< 20	< 2	< 2	100	< 20	< 20		< 5		5.5
MW-11	10-Nov-00	265777	< 10	< 1	1.1	120	< 20	< 10		< 5		7.0
MW-11	22-May-01	279730	< 10	< 1	< 1	72	< 10	< 10		< 5		20.0
MW-11	13-Nov-01	293148	< 10	< 1	< 1	94	< 10	< 10		< 5		< 3
MW-11	5-Nov-02	319787	< 50	< 5	< 50	55	< 50	< 50		< 5		< 3
MW-11	13-May-03	331850	< 50	< 5	< 5	59	< 50	< 50		< 5		8.6
MW-11	18-May-04	361836	< 10	< 5	< 5	72	< 10	< 10		< 5		4.1
MW-11	30-Aug-05	395087	< 10	< 5	< 5	42	< 10	< 10		< 5		20
MW-11	11-Apr-06	0604183-03	< 2	< 2	< 2	79	< 2	< 2		< 5		< 3
MW-11	9-Oct-06	0610230-14	< 1	< 1	< 1	38	2	< 1		-		-
MW-11	25-Apr-07	0705020-01	< 1	< 1	< 1	8.6	11	< 1		< 5		3
MW-11	5-Nov-07	0711197-05	< 1	< 1	2.1	77	< 1	< 1		< 5		7.3
MW-11	23-Apr-08	0804511-08	< 1	< 1	< 1	75	2.3	< 1		< 5		< 3
MW-11	13-Nov-08	0811333-15	< 1	< 1	< 1	80	1.1	< 1		< 5		< 3

**SUMMARY OF GROUNDWATER SAMPLING RESULTS  
SPRINGFIELD TOWNSHIP SUPERFUND SITE**

Well Number	Sample Date	Sample I D Number	Concentration (µg/L)							
			TOLUENE	TCE	1,1-DCE	1,1,1-TCA	1,1-DCA	CHLORO-BENZENE	AS <sup>3</sup>	LEAD <sup>3</sup>
RAS			1,000	5	7	200	880	100	20	50
MW-13	6-Oct-94	940888-25	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	22
MW-13	11-Jan-95	950012-16	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	34
MW-13	14-Apr-95	950210-11	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	11.6
MW-13	11-Jul-95	950474-05	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	15.4
MW-13	9-Jan-96	960004-03	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	20.1
MW-13	9-Jul-96	960530-09	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	20.4
MW-13	15-Jan-97	WW2648165	< 0.05	< 0.05	< 0.05	< 0.04	< 0.04	< 0.05	< 1.7	18.2
MW-13	13-Jan-98	WW2859278	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2	18.9
MW-13	11-Sep-98	85515-11	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.7	39
MW-13	18-Mar-99	E218853	< 10	< 1	< 1	< 10	< 10	< 10	< 5	17
MW-13	5-Oct-99	E234132	< 10	< 1	< 1	< 10	< 10	< 10	< 5	4
MW-13	13-Mar-00	E245032	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-13	9-Nov-00	265778	< 10	< 1	< 1	< 10	< 10	< 10	< 5	4.4
MW-102M	4-Oct-94	940888-13	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	< 1 U
MW-102M	12-Jan-95	950020-05	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	7
MW-102M	16-Apr-95	950210-31	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	4.9
MW-102M	13-Jul-95	950488-06	< 0.5 UJ	< 0.5 UJ	< 0.5 UJ	< 0.5 UJ	< 0.5 UJ	< 0.5 UJ	< 2 U	< 2 U
MW-102M	11-Jan-96	960014-01	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	2 B
MW-102M	10-Jul-96	960535-09	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	4.9 B	67.8
MW-102M	24-Jan-97	WW2651853	< 0.05	< 0.05	< 0.05	< 0.04	< 0.04	< 0.05	2 J	3.9
MW-102M	15-Jan-98	WW2859279	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 2
MW-102M	11-Sep-98	85515-12	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	5.2	3.9
MW-102M	18-Mar-99	E218850	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-102M	5-Oct-99	E234137	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-102M DUP	5-Oct-99	E234138	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-102M	31-May-01	280080	< 10	< 1	< 1	< 10	< 10	< 10	< 5	155 <sup>3</sup>
MW-102M	16-Nov-01	293486	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-102M	29-May-02	306696	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-102M	7-Nov-02	319788	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-102M DUP	7-Nov-02	319796	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-102M	15-May-03	331857	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-102M	4-Nov-03	348868	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-102M	20-May-04	361837	< 10	< 1	< 1	< 10	< 10	< 10	< 5	11
MW-102M DUP	20-May-04	361849	< 10	< 1	< 1	< 10	< 10	< 10	< 5	9
MW-102M	9-Dec-04	378571	< 10	< 1	< 1	< 10	< 10	< 10	< 5	4
MW-102M DUP	9-Dec-04	378572	< 10	< 1	< 1	< 10	< 10	< 10	< 5	11
MW-102M	1-Sep-05	395090	< 10	< 1	< 1	< 10	< 10	< 10	< 5	3.7
MW-102M DUP	1-Sep-05	395091	< 10	< 1	< 1	< 10	< 10	< 10	< 5	3.6
MW-102M	13-Apr-06	0604274-01	1.1	< 1	< 1	< 1	< 1	< 1	< 5	22.0
MW-102M	4-Oct-06	0610230-07	2.1	< 1	< 1	< 1	< 1	< 1	-	-
MW-102M	24-Apr-07	0704477-08	< 1	< 1	< 1	< 1	< 1	< 1	< 5	3.2
MW-102M	6-Nov-07	0711197-09	< 1	< 1	< 1	< 1	< 1	< 1	< 5	3.3
MW-102M	24-Apr-08	0804542-01	< 1	< 1	< 1	< 1	< 1	< 1	< 5	< 3
MW-102M	12-Nov-08	0811333-10	< 1	< 1	< 1	< 1	< 1	< 1	< 5	< 3
MW-103	11-Jul-94	A4355607	1 J	< 1	< 1	< 1	< 1	< 1	< 3	8
MW-103	6-Oct-94	940888-26	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	4.8
MW-103	11-Jan-95	950012-09	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	< 5.1 U
MW-103	14-Apr-95	950210-04	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	< 2 U
MW-103	11-Jul-95	950474-02	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	< 2 U
MW-103	10-Jan-96	960014-06	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	< 1 U
MW-103	10-Jul-96	960530-20	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	< 2 U
MW-103	15-Jan-97	WW2648169	0.25 J	< 0.05	< 0.05	< 0.04	< 0.04	< 0.05	< 1.7	1.7 J
MW-103 DUP	15-Jan-97	WW2648171	< 0.05	< 0.05	< 0.05	< 0.04	< 0.04	< 0.05	< 1.7	2.8 J
MW-103	11-Jul-97	WW2743047	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 2
MW-103	14-Jan-98	WW2859280	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2	3.8
MW-103 DUP	14-Jan-98	WW2859302	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2	3.6
MW-103	11-Sep-98	85515-13	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	3.2	4
MW-103 DUP	11-Sep-98	85515-29	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	3.2	3.6
MW-103	16-Mar-99	E218830	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-103	4-Oct-99	E234145	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3

**SUMMARY OF GROUNDWATER SAMPLING RESULTS  
SPRINGFIELD TOWNSHIP SUPERFUND SITE**

Well Number	Sample Date	Sample I.D Number	Concentration (µg/L)								AS <sup>3</sup>	LEAD <sup>1</sup>
			TOLUENE	TCE	1,1-DCE	1,1,1-TCA	1,1-DCA	CHLORO-BENZENE				
RAS			1,000	5	7	200	880	100			20	50
MW-104	6-Jul-94	A4347213	< 1	0.2 J	< 1	< 1	< 1	< 1	< 3			5
MW-104	6-Oct-94	940888-27	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U			2 B
MW-104	10-Jan-95	950012-08	0.7	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U			2.6 UB
MW-104	14-Apr-95	950210-05	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U			2 U
MW-104	11-Jul-95	950474-03	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	3	< 2 U			2 U
MW-104	10-Jan-96	960014-05	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U			2.1 B
MW-104 DUP	10-Jan-96	960014-08	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U			1 U
MW-104	9-Jul-96	960530-10	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	7.4 B			2 U
MW-104 DUP	9-Jul-96	960530-11	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	4.2 B			2 U
MW-104	15-Jan-97	WW2648168	< 0.05	< 0.05	< 0.05	< 0.04	< 0.04	< 0.05	< 1.7			1.5 J
MW-104	11-Jul-97	WW2743048	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2			2
MW-104	14-Jan-98	WW2859281	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2			2
MW-104	11-Sep-98	85515-14	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	3.8			2
MW-104	16-Mar-99	E218831	< 10	< 1	< 1	< 10	< 10	< 10	< 5			3
MW-104	4-Oct-99	E234146	< 10	< 1	< 1	< 10	< 10	< 10	< 5			3
MW-104	13-Mar-00	E245034	< 10	< 1	< 1	< 10	< 10	< 10	< 5			3
MW-104	9-Nov-00	265785	< 10	< 1	< 1	< 10	< 10	< 10	< 5			3
MW-104	14-Nov-01	293488	< 10	< 1	< 1	< 10	< 10	< 10	< 5			3
MW-104	5-Nov-02	319789	< 10	< 1	< 1	< 10	< 10	< 10	< 5			3
MW-104	13-May-03	331848	< 10	< 1	< 1	< 10	< 10	< 10	< 5			3
MW-104	19-May-04	361838	< 10	< 1	< 1	< 10	< 10	< 10	< 5			3
MW-104	30-Aug-05	395086	< 10	< 1	< 1	< 10	< 10	< 10	< 5			3
MW-104	7-Apr-06	0604127-05	< 1	< 1	< 1	< 1	< 1	< 1	< 5			3
MW-104	24-Apr-07	0704477-12	< 1	< 1	< 1	< 1	< 1	< 1	< 5			3
MW-104 DUP	24-Apr-07	0704477-09	< 1	< 1	< 1	< 1	< 1	< 1	< 5			3
MW-104	22-Apr-08	0804511-05	< 1	< 1	< 1	< 1	< 1	< 1	< 5			3
MW-105	7-Jul-94	A4346904	< 1	67 J	0.3 J	60 J	29 J	< 1	< 3			2 J
MW-105	4-Oct-94	940888-14	< 0.5 U	97	< 0.5 U	61	26	< 0.5 U	< 2 U			1 U
MW-105	11-Jan-95	950012-22	< 0.5 U	120	< 0.5 U	44	11	< 0.5 U	< 2 U			6.7
MW-105	16-Apr-95	950210-30	< 0.5 U	110	1	38	9	< 0.5 U	< 2 U			2 U
MW-105	13-Jul-95	950488-02	< 0.5 U	69	< 0.5 U	22	9	< 0.5 U	< 2 U			2 U
MW-105 DUP	13-Jul-95	950488-03	< 0.5 U	51 J	< 0.5 U	18 J	7 J	< 0.5 U	< 2 U			2 U
MW-105	11-Jan-96	960004-20	< 1 U	200	< 1 U	62	11	< 1 U	< 2 U			1 U
MW-105	10-Jul-96	960535-07	< 0.5 U	430 J	< 0.5 U	33	12	< 0.5 U	5.4 B			2 U
MW-105	16-Jan-97	WW2648213	< 0.05	56	< 0.05	6.1	2	< 0.05	< 1.7			1 J
MW-105	12-Jul-97	WW2743049	< 0.5	370	< 0.5	31.0	7.5	< 0.5	< 2			2
MW-105	15-Jan-98	WW2859282	< 0.5	350	< 0.5	34	9.5	< 0.5	< 2			2
MW-105	11-Sep-98	85515-15	< 0.5	190	< 0.5	35	7.6	< 0.5	2.3			2
MW-105	17-Mar-99	E218841	< 100	630	< 10	< 100	< 100	< 100	< 5			3
MW-105	5-Oct-99	E234136	< 10	1100	< 10	< 10	< 10	< 10	< 5			3
MW-105	14-Mar-00	E245047	< 200	1200	< 20	< 200	< 200	< 200	< 5			3
MW-105	9-Nov-00	265772	< 25	1600	< 25	77	< 25	< 25	< 5			3
MW-105 DUP	9-Nov-00	265787	< 10	1500	< 1	28	< 10	< 10	< 5			3
MW-105	30-May-01	280076	< 100	550	< 10	< 100	< 100	< 100	< 5			3
MW-105 DUP	30-May-01	280077	< 100	490	< 10	< 100	< 100	< 100	< 5			3
MW-105	16-Nov-01	293485	< 50	400	< 5	< 50	< 50	< 50	< 5			3
MW-105	30-May-02	306700	< 250	980	< 25	< 250	< 250	< 250	< 5			3
MW-105	7-Nov-02	319790	< 250	510	< 25	< 250	< 250	< 250	< 5			3
MW-105	15-May-03	331719	< 25	800	< 25	35	< 10	< 25	< 5			3
MW-105	5-Nov-03	348862	< 25	880	< 25	< 25	< 25	< 25	< 5			3
MW-105 DUP	5-Nov-03	348877	< 25	890	< 25	< 25	< 25	< 25	< 5			3
MW-105	20-May-04	361839	< 10	1200	< 50	< 10	< 10	< 10	< 5			3
MW-105	8-Dec-04	378354	< 50	800	< 50	< 50	< 50	< 50	< 5			3
MW-105	1-Sep-05	395092	< 20	510	< 20	< 20	< 20	< 20	< 5			3
MW-105	17-Nov-05	-	-	760	-	-	-	-	-			-
MW-105 DUP	17-Nov-05	-	-	790	-	-	-	-	-			-
MW-105	14-Dec-05	-	-	660	-	-	-	-	-			-
MW-105	12-Jan-06	-	-	550	-	-	-	-	-			-
MW-105 DUP	12-Jan-06	-	-	530	-	-	-	-	-			-
MW-105	12-Apr-06	0604214-01	< 20	810	< 20	< 20	< 20	< 20	< 5			3
MW-105	4-Oct-06	0610230-06	< 10	760	< 10	< 10	< 10	< 10	-			-
MW-105	26-Apr-07	07050020-8	< 10	300	< 10	< 10	< 10	< 10	< 5			6.6
MW-105	5-Nov-07	0711197-07	< 5	160	< 5	< 5	< 5	< 5	< 5			3
MW-105 DUP	5-Nov-07	0711197-08	< 5	160	< 5	< 5	< 5	< 5	< 5			3
MW-105	22-Apr-08	0804511-01	< 10	460	< 10	< 10	< 10	< 10	< 5			4.7
MW-105	11-Nov-08	0811333-05	< 10	360	< 10	< 10	< 10	< 10	< 5			5.0

**SUMMARY OF GROUNDWATER SAMPLING RESULTS  
SPRINGFIELD TOWNSHIP SUPERFUND SITE**

Well Number	Sample Date	Sample I.D Number	Concentration (µg/L)							
			TOLUENE	TCE	1,1-DCE	1,1,1-TCA	1,1-DCA	CHLORO-BENZENE	AS <sup>3</sup>	LEAD <sup>3</sup>
RAS			1,000	5	7	200	880	100	20	50
MW-106	24-May-02	306687	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-106	15-Nov-02	320674	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-106	14-May-03	331556	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-106	6-Nov-03	348863	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-106	21-May-04	361840	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-106	8-Dec-04	378355	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-106	2-Sep-05	395139	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-106	12-Jan-06	-	-	-	-	-	-	-	< 5	6.1
MW-106	11-Apr-06	0604216-01	< 1	< 1	< 1	< 1	< 1	< 1	< 5	< 3.0
MW-106	26-Apr-07	0705020-05	< 1	< 1	< 1	< 1	< 1	< 1	< 5	31
MW-108	6-Jul-94	A4347212	< 1	< 1	< 1	< 1	< 1	< 1	< 3	6
MW-108	6-Oct-94	940888-28	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	< 1 U
MW-108	11-Jan-95	950012-15	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	< 1 U
MW-108	14-Apr-95	950210-12	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	< 2 U
MW-108	11-Jul-95	950474-04	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	< 2 U
MW-108	9-Jan-96	960004-09	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	< 1 U
MW-108 DUP	9-Jan-96	960004-13	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	< 1 U
MW-108	9-Jul-96	960530-07	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	< 2 U
MW-108	15-Jan-97	WW26481666	< 0.05	< 0.05	< 0.05	< 0.04	< 0.04	< 0.05	< 1.7	1.1 J
MW-108	11-Jul-97	WW2743050	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 2
MW-108	13-Jan-98	WW2859283	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	4.3	< 2
MW-108	11-Sep-98	85515-16	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.1	< 2
MW-108	18-Mar-99	E218858	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-108	5-Oct-99	E234134	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-108	14-Mar-00	E245035	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-108	9-Nov-00	265779	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-108	22-May-01	279729	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-201	8-Jul-94	A4349204	< 1	< 1	< 1	NA	< 0.5	< 0.5	< 3	8 J
MW-201	4-Oct-94	940888-14	< 0.5 U	< 0.5	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	2.4 B
MW-201	11-Jan-95	950012-17	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	< 1.1 UB
MW-201	15-Apr-95	950210-20	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	< 2 U
MW-201	12-Jul-95	950482-05	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	< 2 U
MW-201	9-Jan-96	960004-04	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	< 1 U
MW-201	9-Jul-96	960530-02	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	3.3 B	< 2 U
MW-201	15-Jan-97	WW2648162	< 0.05	< 0.05	< 0.05	< 0.04	< 0.04	< 0.05	< 1.7	1.8 J
MW-201	11-Jul-97	WW2743051	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 2
MW-201	13-Jan-98	WW2859284	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 2
MW-201	11-Sep-98	85515-17	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2	14
MW-201	17-Mar-99	E218838	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-201	5-Oct-99	E234142	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-201	14-Mar-00	E245041	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-201	10-Nov-00	265780	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-202	11-Jul-94	A4355607	< 1	< 1	< 1	< 1	< 1	< 1	< 3	4
MW-202	6-Oct-94	940888-29	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	4 J	< 1 U
MW-202	10-Jan-95	950012-05	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	89.7
MW-202	15-Apr-95	950210-17	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	7.7
MW-202	12-Jul-95	950482-04	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	3 B	2.3 B
MW-202	10-Jan-96	960014-09	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	5.9
MW-202	10-Jul-96	960530-13	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	3.1 B	< 2 U
MW-202	15-Jan-97	WW2648170	< 0.05	< 0.05	< 0.05	< 0.04	< 0.04	< 0.05	< 1.7	2.9 J
MW-202	11-Jul-97	WW2743052	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2	6
MW-202	14-Jan-98	WW2859285	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2	2.7
MW-202	11-Sep-98	85515-18	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	3.6	12
MW-202	18-Mar-99	E218857	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-202	5-Oct-99	E234141	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-202	14-Mar-00	E245036	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-202	9-Nov-00	265781	< 10	< 1	< 1	< 10	< 10	< 10	< 5	13

**SUMMARY OF GROUNDWATER SAMPLING RESULTS  
SPRINGFIELD TOWNSHIP SUPERFUND SITE**

Well Number	Sample Date	Sample I D Number	Concentration (µg/L)								AS <sup>3</sup>	LEAD <sup>3</sup>
			TOLUENE	TCE	1,1-DCE	1,1,1-TCA	1,1-DCA	CHLORO-BENZENE				
RAS			1,000	5	7	200	880	100		20		50
MW-203	11-Jul-94	A4355602	1 J	< 1	< 1	< 1	< 1	< 1	< 3		14.1 J	
MW-203	5-Oct-94	940888-16	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	< 1 U		
MW-203 DUP	5-Oct-94	940888-11	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U		1.4 B	
MW-203	10-Jan-95	950012-04	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U		48	
MW-203	15-Apr-95	950210-18	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U		46	
MW-203	12-Jul-95	950482-02	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U		31.7	
MW-203	10-Jan-96	960014-13	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U		4.3	
MW-203	10-Jul-96	960530-12	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	3.7 B	< 2 U		
MW-203	16-Jan-97	WW2648205	< 0.05	< 0.05	< 0.05	< 0.04	< 0.04	< 0.05	< 1.7		7.1	
MW-203	11-Jul-97	WW2743080	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2		4.9	
MW-203	14-Jan-98	WW2859286	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2		3.6	
MW-203	11-Sep-98	85515-19	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.4		4.8	
MW-203	18-Mar-99	E218854	< 10	< 1	< 1	< 10	< 10	< 10	< 5		5.6	
MW-203	5-Oct-99	E234140	< 10	< 1	< 1	< 10	< 10	< 10	< 5		4.4	
MW-203	14-Mar-00	E245037	< 10	< 1	< 1	< 10	< 10	< 10	< 5		6.7	
MW-203	10-Nov-00	265786	< 10	4.9	< 1	< 10	< 10	< 10	< 5	< 3		
MW-203 DUP	10-Nov-00	265788	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3		
MW-203	13-Nov-01	293146	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3		
MW-203	5-Nov-02	319791	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3		
MW-203	13-May-03	331851	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3		
MW-203	18-May-04	361841	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3		
MW-203	7-Sep-05	395146	< 10	< 1	< 1	< 10	< 10	< 10	< 5.0	< 3.0		
MW-203	11-Apr-06	0604183-04	< 1	< 1	< 1	< 1	< 1	< 1	< 5.0		4.6	
MW-203 DUP	11-Apr-06	0604183-05	< 1	< 1	< 1	< 1	< 1	< 1	< 5.0		9.0	
MW-203	23-Apr-07	070477-02	< 1	< 1	< 1	< 1	< 1	< 1	< 5.0		6.2	
MW-203	25-Apr-08	0804542-08	< 1	< 1	< 1	< 1	< 1	< 1	< 5.0		4.4	
MW-203 DUP	25-Apr-08	0804542-09	< 1	< 1	< 1	< 1	< 1	< 1	< 5.0		6.7	
MW-204	11-Jul-94	A4355601	< 1	< 1	< 1	< 1	< 1	< 1	< 3		13	
MW-204	6-Oct-94	940888-30	0.3 J	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	0.4 J	2.8 J	< 1 U		
MW-204	11-Jan-95	950012-14	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	< 9.2 U		
MW-204	14-Apr-95	950210-10	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	< 2 U		
MW-204	12-Jul-95	950482-04	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	< 2 U		
MW-204	10-Jan-96	960014-07	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	< 1 U		
MW-204	9-Jul-96	960530-08	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	< 2 U		
MW-204	15-Jan-97	WW2648167	< 0.05	< 0.05	< 0.05	< 0.04	< 0.04	< 0.05	< 1.7		1.4 J	
MW-204	11-Jul-97	WW2743081	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 2		
MW-204	13-Jan-98	WW2859287	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 2		
MW-204	11-Sep-98	85515-20	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.8	< 2		
MW-204	18-Mar-99	E218852	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3		
MW-204	5-Oct-99	E234133	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3		
MW-204	13-Mar-00	E245033	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3		
MW-204	9-Nov-00	265782	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3		
MW-205	11-Jul-94	A4355605	< 1	< 1	< 1	< 1	< 1	< 1	< 3		3	
MW-205	6-Oct-94	940888-31	0.3 J	0.3 J	< 0.5 U	< 0.5 U	< 0.5 U	0.4 J	< 2 U		1.4 B	
MW-205	11-Jan-95	950012-19	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5	< 2 U		14.7	
MW-205	15-Apr-95	950210-16	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	< 2 U		
MW-205	11-Jul-95	950474-07	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	< 2 U		
MW-205	10-Jan-96	960014-12	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	< 2 U		
MW-205	10-Jul-96	960530-15	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U		4.3	
MW-205 DUP	10-Jul-96	960530-14	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	5.8 B	< 2 U		
MW-205	16-Jan-97	WW2648206	< 0.05	< 0.05	< 0.05	< 0.04	< 0.04	< 0.05	< 1.7		2.2 J	
MW-205	11-Jul-97	WW2743082	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 2		
MW-205	13-Jan-98	WW2859293	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 2		
MW-205	11-Sep-98	85515-21	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	3	< 2		
MW-205	18-Mar-99	E218855	< 10	< 1	< 1	< 10	< 10	< 10	< 5		5.8	
MW-205 DUP	18-Mar-99	E218856	< 10	< 1	< 1	< 10	< 10	< 10	< 5		8.2 J	
MW-205	5-Oct-99	E234135	< 10	< 1	< 1	< 10	< 10	< 10	< 5		4.7	
MW-205	14-Mar-00	E245038	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3		
MW-205	10-Nov-00	265783	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3		
MW-205	22-May-01	279733	< 10	< 1	< 1	< 10	< 10	< 10	< 5		3.2	
MW-205	13-Nov-01	293147	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3		
MW-205	24-May-02	306691	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3		
MW-205	5-Nov-02	319792	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3		
MW-205	13-May-03	331849	< 10	< 1	< 1	< 10	< 10	< 10	< 5		3.9	
MW-205	5-Nov-03	348869	< 10	< 1	< 1	< 10	< 10	< 10	< 5		4.2	
MW-205	19-May-04	361842	< 10	< 1	< 1	< 10	< 10	< 10	< 5		8	
MW-205	14-Dec-04	379133	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3		
MW-205	7-Sep-05	395147	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3		
MW-205	11-Apr-06	0604183-02	< 1	< 1	< 1	< 1	< 1	< 1	< 5		3.6	
MW-205	11-Oct-06	0610230-12	< 1	< 1	< 1	< 1	< 1	< 1	-		-	
MW-205	25-Apr-07	0705020-03	< 1	< 1	< 1	< 1	< 1	< 1	< 5.0		13.0	
MW-205	6-Nov-07	0711197-13	< 1	< 1	< 1	< 1	< 1	< 1	< 5		4.9	
MW-205	23-Apr-08	0804511-10	< 1	< 1	< 1	< 1	< 1	< 1	< 5	< 3		
MW-205	11-Nov-08	0811333-02	< 1	< 1	< 1	< 1	< 1	< 1	< 5		7.2	

**SUMMARY OF GROUNDWATER SAMPLING RESULTS  
SPRINGFIELD TOWNSHIP SUPERFUND SITE**

Well Number	Sample Date	Sample ID Number	Concentration (µg/L)							
			TOLUENE	TCE	1,1-DCE	1,1,1-TCA	1,1-DCA	CHLORO-BENZENE	AS <sup>3</sup>	LEAD <sup>3</sup>
RAS			1,000	5	7	200	880	100	20	50
MW-302S	6-Jul-94	A4347218	0.1 J	< 1	< 1	< 1	< 1	< 1	< 3 J	22 J
MW-302S	4-Oct-94	940888-18	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	2 B
MW-302S	10-Jan-95	950012-01	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	< 1 U
MW-302S	14-Apr-95	950210-15	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	< 2 U
MW-302S	11-Jul-95	950474-08	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	< 2 U
MW-302S	9-Jan-96	960004-07	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	< 1 U
MW-302S	9-Jul-96	960530-05	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	2 B	3.7
MW-302S	15-Jan-97	WW2648161	0.11 J	< 0.05	< 0.05	< 0.04	< 0.04	< 0.05	< 1.7	1.4 J
MW-302S	11-Jul-97	WW274083	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 2
MW-302S	13-Jan-98	WW2859294	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 2
MW-302S	11-Sep-98	85515-22	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	3.3	< 2
MW-302S	17-Mar-99	E218839	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-302S	5-Oct-99	-	-	-	-	-	-	-	-	-
MW-302D	6-Jul-94	A4347214	< 1	< 1	< 1	< 1	< 1	< 1	< 3	12
MW-302D	5-Oct-94	940888-17	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	8
MW-302D	11-Jan-95	950012-18	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	1.8 UB
MW-302D	14-Apr-95	950210-14	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	12
MW-302D	11-Jul-95	950474-09	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	6
MW-302D DUP	11-Jul-95	950474-10	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	6
MW-302D	9-Jan-96	960004-12	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	7
MW-302D	9-Jul-96	960530-01	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	11.6
MW-302D	15-Jan-97	WW2648163	< 0.05	< 0.05	< 0.05	< 0.04	< 0.04	< 0.05	< 1.7	5.4
MW-302D	11-Jul-97	WW2740384	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 2
MW-302D	13-Jan-98	WW2859295	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2	2.4
MW-302D	11-Sep-98	85515-23	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2	6.5
MW-302D	17-Mar-99	E218840	< 10	< 1	< 1	< 10	< 10	< 10	< 5	7.8
MW-302D	5-Oct-99	E234143	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-302D	14-Mar-00	E245042	< 10	< 1	< 1	< 10	< 10	< 10	< 5	4.2
MW-302D	10-Nov-00	265773	< 10	< 1	< 1	< 10	< 10	< 10	< 5	4.1
MW-302D	22-May-01	279727	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-302D	9-Nov-01	293144	< 10	< 1	< 1	< 10	< 10	< 10	< 5	9.4
MW-302D	23-May-02	306697	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-302D	5-Nov-02	319793	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-302D	13-May-03	331852	< 10	< 1	< 1	< 10	< 10	< 10	< 5	9.7
MW-302D	6-Nov-03	348870	< 10	< 1	< 1	< 10	< 10	< 10	< 5	7.4
MW-302D	18-May-04	361843	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3.0
MW-302D	14-Dec-04	379136	< 10	< 1	< 1	< 10	< 10	< 10	< 5	4.0
MW-302D	30-Aug-05	395082	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3.0
MW-302D	10-Apr-06	0604127-07	< 1	< 1	< 1	< 1	< 1	< 1	< 5	5.2
MW-302D	5-Oct-06	0610230-10	< 1	< 1	< 1	< 1	< 1	< 1	-	-
MW-302D	23-Apr-07	070447-03	< 1	< 1	< 1	< 1	< 1	< 1	< 5	5.5
MW-302D	5-Nov-07	0711197-04	< 1	< 1	< 1	< 1	< 1	< 1	< 5	5.2
MW-302D	23-Apr-08	0804511-07	< 1	< 1	< 1	< 1	< 1	< 1	< 5	9.7
MW-302D	13-Nov-08	0811333-14	< 1	< 1	< 1	< 1	< 1	< 1	< 5	12.0
MW-304S	11-Jul-94	A4355604	< 1	< 1	< 1	0.1 J	< 1	< 1	< 3	5 J
MW-304S DUP	11-Jul-94	A4355604FD	< 1	< 1	< 1	0.1 J	< 1	< 1	NA	NA
MW-304S	4-Oct-94	940888-19	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	2.4 B	4.6
MW-304S	11-Jan-95	950012-12	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	< 4 U
MW-304S	14-Apr-95	950210-02	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	< 2 U
MW-304S	12-Jul-95	950482-07	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	5
MW-304S	10-Jan-96	960014-10	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	4
MW-304S	10-Jul-96	960530-19	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	3.9 B	< 2 U
MW-304S	16-Jan-97	WW2648208	< 0.05	< 0.05	< 0.05	0.38 J	< 0.04	< 0.05	< 1.7	12.8
MW-304S	11-Jul-97	WW2743085	< 0.5	< 0.5	< 0.5	0.55	< 0.5	< 0.5	< 2	21.8
MW-304S	14-Jan-98	WW2859296	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 2
MW-304S	11-Sep-98	85515-24	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.7	28
MW-304S	16-Mar-99	E218833	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-304S	5-Oct-99	E234147	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-304S DUP	5-Oct-99	E234148	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-304S	13-Mar-00	E245027	< 10 J	< 1 J	< 1	< 10	< 10	< 10	< 5	< 3
MW-304S	9-Nov-00	265774	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-304S	23-May-01	279736	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-304S	14-Nov-01	293489	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-304S	24-May-02	306688	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-304S	8-Nov-02	320325	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-304S	15-May-03	331859	< 10	< 1	< 1	< 10	< 10	< 10	< 5	8.9
MW-304S	5-Nov-03	348871	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-304S	19-May-04	361844	< 10	< 1	< 1	< 10	< 10	< 10	< 5	3.1
MW-304S	9-Dec-04	378573	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-304S	2-Sep-05	395141	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3
MW-304S	6-Apr-06	0604127-03	< 1	< 1	< 1	< 1	< 1	< 1	< 5	< 3
MW-304S DUP	6-Apr-06	0604127-02	< 1	< 1	< 1	< 1	< 1	< 1	< 5	< 3
MW-304S	3-Oct-06	0610230-02	< 1	< 1	< 1	< 1	< 1	< 1	-	-
MW-304S	26-Apr-07	0705020-09	< 1	< 1	< 1	< 1	< 1	< 1	< 5	13
MW-304S	6-Nov-07	0711197-12	< 1	< 1	< 1	< 1	< 1	< 1	< 5	< 3
MW-304S	12-Nov-08	0811333-09	< 1	< 1	< 1	1.1	< 1	< 1	< 5	< 3

**SUMMARY OF GROUNDWATER SAMPLING RESULTS  
SPRINGFIELD TOWNSHIP SUPERFUND SITE**

Well Number	Sample Date	Sample I D Number	Concentration (µg/L)								AS <sup>3</sup>	LEAD <sup>3</sup>
			TOLUENE	TCE	1,1-DCE	1,1,1-TCA	1,1-DCA	CHLORO-BENZENE				
RAS			1,000	5	7	200	880	100		20		50
MW-305S	6-Jul-94	A4347215	< 1	< 1	< 1	< 1	< 1	< 1	< 3		< 2	J
MW-305S *	10-Oct-94	940888-20/38	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U		< 1	U
MW-305S	10-Jan-95	950012-10	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U		< 1	U
MW-305S	14-Apr-95	950210-09	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U		< 2	U
MW-305S DUP	14-Apr-95	950210-08	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U		< 2	U
MW-305S	12-Jul-95	950482-10	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U		< 2	U
MW-305S DUP	12-Jul-95	950482-09	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U		< 2	U
MW-305S	9-Jan-96	960004-06	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U		< 1	U
MW-305S	10-Jul-96	960530-18	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U		< 2	U
MW-305S	16-Jan-97	WW2648210	< 0.05	< 0.05	< 0.05	0.11 J	< 0.04	< 0.05	< 1.7		1.3	J
MW-305S	11-Jul-97	WW274086	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2		< 2	
MW-305S	14-Jan-98	WW2859297	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2		< 2	
MW-305S	11-Sep-98	85515-25	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	3		< 2	
MW-305S	17-Mar-99	E218842	< 10	< 1	< 1	< 10	< 10	< 10	< 5		< 3	
MW-305S	6-Oct-99	E234156	< 10	< 1	< 1	< 10	< 10	< 10	< 5		< 3	
MW-305S	13-Mar-00	E245031	< 10	< 1	< 1	< 10	< 10	< 10	< 5		< 3	
MW-305S	9-Nov-00	265775	< 10	< 1	< 1	< 10	< 10	< 10	< 5		< 3	
MW-305S	22-May-01	279731	< 10	< 1	< 1	< 10	< 10	< 10	< 5		< 3	
MW-305S	15-Nov-01	293493	< 10	< 1	< 1	< 10	< 10	< 10	< 5		5.7	
MW-305S	24-May-02	306689	< 10	< 1	< 1	< 10	< 10	< 10	< 5		< 3	
MW-305S	6-Nov-02	319794	< 10	< 1	< 1	< 10	< 10	< 10	< 5		< 3	
MW-305S	14-May-03	331557	< 10	< 1	< 1	< 10	< 10	< 10	< 5		< 3	
MW-305S	6-Nov-03	348865	< 10	< 1	< 1	< 10	< 10	< 10	< 5		< 3	
MW-305S	20-May-04	361845	< 10	< 1	< 1	< 10	< 10	< 10	< 5		< 3	
MW-305S	14-Dec-04	379132	< 10	< 1	< 1	< 10	< 10	< 10	< 5		< 3	
MW-305S	2-Sep-05	395149	< 10	< 1	< 1	< 10	< 10	< 10	< 5		< 3	
MW-305S	12-Jan-06	-	-	-	-	-	-	-	< 5		5.7	
MW-305S	11-Apr-06	0604216-02	< 1	< 1	< 1	< 1	< 1	< 1	< 5		< 3.0	
MW-305S	3-Oct-06	0610230-01	< 1	< 1	< 1	< 1	< 1	< 1	-		-	
MW-305S	26-Apr-07	0705020-07	< 1	< 1	< 1	< 1	< 1	< 1	< 5		33.0	
MW-305S	22-Apr-08	0804511-04	< 1	< 1	< 1	< 1	< 1	< 1	< 5		13.0	
MW-305S	11-Nov-08	0811333-06	< 1	< 1	< 1	< 1	< 1	< 1	< 5		6.3	
MW-306S	4-Oct-94	940888-21	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	2.1 J		< 1	U
MW-306S	10-Jan-95	950012-02	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U		< 8.5	U
MW-306S DUP	10-Jan-95	950012-03	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U		< 1	U
MW-306S	14-Apr-95	950210-07	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U		< 2	U
MW-306S	12-Jul-95	950482-01	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U		< 2	U
MW-306S	9-Jan-96	960004-08	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U		< 1	U
MW-306S	9-Jul-96	960530-04	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	2.1 B		< 2	U
MW-306S	16-Jan-97	WW2648209	< 0.05	< 0.05	< 0.05	0.23 J	< 0.04	< 0.05	< 1.7		1.3	J
MW-306S	11-Jul-97	WW2743087	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2		3.4	
MW-306S	14-Jan-98	WW2859298	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2		< 2	
MW-306S	11-Sep-98	85515-26	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	3.6		< 2	
MW-306S	16-Mar-99	E218832	< 10	< 1	< 1	< 10	< 10	< 10	< 5		< 3	
MW-306S	4-Oct-99	E234144	< 10	< 1	< 1	< 10	< 10	< 10	< 5		< 3	
MW-306S	14-Mar-00	E245044	< 10	< 1	< 1	< 10	< 10	< 10	< 5		< 3	
MW-306S	10-Nov-00	265776	< 10	< 1	< 1	< 10	< 10	< 10	< 5		< 3	
MW-306S	22-May-01	279728	< 10	< 1	< 1	< 10	< 10	< 10	< 5		< 3	
MW-306S	9-Nov-01	293143	< 10	< 1	< 1	< 10	< 10	< 10	< 5		< 3	
MW-306S	23-May-02	306698	< 10	< 1	< 1	< 10	< 10	< 10	< 5		< 3	
MW-306S	8-Nov-02	320326	< 10	< 1	< 1	< 10	< 10	< 10	< 5		< 3	
MW-306S	14-May-03	331855	< 10	< 1	< 1	< 10	< 10	< 10	9.2		19	
MW-306S	5-Nov-03	348872	< 10	< 1	< 1	< 10	< 10	< 10	< 5		< 3	
MW-306S	20-May-04	361846	< 10	< 1	< 1	< 10	< 10	< 10	< 5		< 3	
MW-306S	8-Dec-04	378351	< 10	< 1	< 1	< 10	< 10	< 10	< 5		< 3	
MW-306S	30-Aug-05	395083	< 10	< 1	< 1	< 10	< 10	< 10	< 5		< 3	
MW-306S	12-Apr-06	0604216-04	< 1	< 1	< 1	< 1	< 1	< 1	< 5		< 3	
MW-306S	5-Oct-06	0610230-11	< 1	< 1	< 1	< 1	< 1	< 1	-		-	
MW-306S	23-Apr-07	070447-01	< 1	< 1	< 1	< 1	< 1	< 1	< 5		< 3	
MW-306S	5-Nov-07	0711197-03	< 1	< 1	< 1	< 1	< 1	< 1	< 5		< 3	
MW-306S	23-Apr-08	0804511-06	< 1	< 1	< 1	< 1	< 1	< 1	< 5		< 3	
MW-306S DUP	23-Apr-08	0804511-11	< 1	< 1	< 1	< 1	< 1	< 1	< 5		< 3	
MW-306S	13-Nov-08	0811333-13	< 1	< 1	< 1	< 1	< 1	< 1	< 5		< 3	



**SUMMARY OF GROUNDWATER SAMPLING RESULTS  
SPRINGFIELD TOWNSHIP SUPERFUND SITE**

Well Number	Sample Date	Sample I.D. Number	Concentration (µg/L)								AS <sup>3</sup>	LEAD <sup>3</sup>
			TOLUENE	TCE	1,1-DCE	1,1,1-TCA	1,1-DCA	CHLORO-BENZENE				
RAS			1,000	5	7	200	880	100			20	50
Nickson Well	7-Apr-95	950210-29	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	< 2 U		
Nickson Well	10-Jul-96	960535-12	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	4.2 B	< 2 U		
Nickson Well	12-Jul-97	WW2743090	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 2		
Nickson Well	11-Sep-98	85515-27	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	4.7	< 2		
Nickson Well	6-Oct-99	E234157	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 2		
Nickson Well	25-May-01	279739	< 10	< 1	< 1	< 10	< 10	< 10	< 5	16 <sup>3</sup>		
Nickson Well	15-Nov-01	293491	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3		
Nickson Well	28-May-02	306693	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3		
Nickson Well	8-Nov-02	320328	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3		
Nickson Well	15-May-03	331860	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3		
Nickson Well	5-Nov-03	348875	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3		
Nickson Well	19-May-04	361853	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3		
Nickson Well	8-Dec-04	378350	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3		
Nickson Well	1-Sep-05	395096	< 10	< 1	< 1	< 10	< 10	< 10	< 5	< 3		
Nickson Well	23-Apr-08	0804511-09	< 1	< 1	< 1	< 1	< 1	< 1	< 5	< 3		
Nickson Well	10-Nov-08	0811333-01	< 1	< 1	< 1	< 1	< 1	< 1	< 5	3.2		
MW-400-1	6-Oct-05	-	-	< 1	-	-	-	-	-	-	-	-
MW-400-1	12-Jan-06	-	-	-	-	-	-	-	< 5	< 3		
MW-400-1	12-Apr-06	0604214-02	< 1	< 1	< 1	< 1	< 1	< 1	< 5	< 3		
MW-400-2	6-Oct-05	-	-	< 1	-	-	-	-	-	-	-	-
MW-400-2	23-Nov-05	-	-	< 1	-	-	-	-	-	-	-	-
MW-400-2	12-Jan-06	-	-	-	-	-	-	-	< 5	< 3		
MW-400-2	18-Apr-06	0604326-02	< 1	< 1	< 1	< 1	< 1	< 1	< 5	< 3		
MW-400-3	6-Oct-05	-	-	< 1	-	-	-	-	-	-	-	-
MW-400-3 DUP	20-Dec-05	-	-	< 1	-	-	-	-	-	-	-	-
MW-400-3	12-Jan-06	-	-	< 1	-	-	-	-	8.2	11		
MW-400-3	18-Apr-06	0604326-06	< 1	< 1	< 1	< 1	< 1	< 1	< 5	< 3		
MW-400-4	6-Oct-05	-	-	< 1	-	-	-	-	-	-	-	-
MW-400-4	18-Nov-05	-	-	< 1	-	-	-	-	-	-	-	-
MW-400-4	15-Dec-05	-	-	< 1	-	-	-	-	-	-	-	-
MW-400-4 DUP	15-Dec-05	-	-	< 1	-	-	-	-	-	-	-	-
MW-400-4	13-Jan-06	-	-	< 1	-	-	-	-	6.4	7.9		
MW-400-4	26-Apr-06	-	-	< 1	-	-	-	-	-	-	-	-
MW-400-5	6-Oct-05	-	-	< 1	-	-	-	-	-	-	-	-
MW-400-5	17-Nov-05	-	-	< 1	-	-	-	-	-	-	-	-
MW-400-5	26-Apr-06	0604518-03	< 1	< 1	< 1	< 1	< 1	< 1	< 5	< 3		
MW-400-6	6-Oct-05	-	-	< 1	-	-	-	-	-	-	-	-
MW-400-6	17-Nov-05	-	-	< 1	-	-	-	-	-	-	-	-
MW-400-6	1-May-06	0605030-01	< 1	< 1	< 1	< 1	< 1	< 1	< 5	< 3		
MW-400-7	17-Nov-05	-	-	< 1	-	-	-	-	-	-	-	-
MW-400-7	1-May-06	0605030-02	< 1	< 1	< 1	< 1	< 1	< 1	< 5	< 3		

**SUMMARY OF GROUNDWATER SAMPLING RESULTS  
SPRINGFIELD TOWNSHIP SUPERFUND SITE**

Well Number	Sample Date	Sample I.D. Number	Concentration (µg/L)							
			TOLUENE	TCE	1,1-DCE	1,1,1-TCA	1,1-DCA	CHLORO-BENZENE	AS <sup>3</sup>	LEAD <sup>3</sup>
RAS			1,000	5	7	200	880	100	20	50
MW-401-3	12-Oct-05	-	-	12	-	-	-	-	-	-
MW-401-3	20-Dec-05	-	-	5.9	-	-	-	-	-	-
MW-401-3	16-Jan-06	-	-	9.1	-	-	-	-	-	-
MW-401-3 DUP	16-Jan-06	-	-	5.6	-	-	-	-	-	-
MW-401-3	7-Apr-06	0604127-06	< 1	57	< 1	< 1	< 1	< 1	-	-
MW-401-3	25-Apr-07	0705020-02	< 1	4.0	< 1	< 1	< 1	< 1	5.7	7.3
MW-401-3	6-Nov-07	0711197-14	< 1	57	< 1	< 1	< 1	< 1	< 5	7.3
MW-401-3	24-Apr-08	0804542-02	< 1	32	< 1	< 1	< 1	< 1	< 5	< 3
MW-401-4	12-Oct-05	-	-	< 1	-	-	-	-	-	-
MW-401-4	23-Nov-05	-	-	< 1	-	-	-	-	-	-
MW-401-4	16-Jan-06	-	-	< 1	-	-	-	-	-	-
MW-401-4	10-Apr-06	0604183-01	< 1	< 1	< 1	< 1	< 1	< 1	-	-
MW-401-4	6-Nov-07	0711197-15	< 1	< 1	< 1	< 1	< 1	< 1	< 5	< 3
MW-401-4	24-Apr-08	0804542-04	< 1	< 1	< 1	< 1	< 1	< 1	< 5	< 3
MW-401-5	12-Oct-05	-	-	< 1	-	-	-	-	-	-
MW-401-5	23-Nov-05	-	-	< 1	-	-	-	-	-	-
MW-401-5	14-Apr-06	0604274-05	< 1	< 1	< 1	< 1	< 1	< 1	-	-
MW-401-6	12-Oct-05	-	-	< 1	-	-	-	-	-	-
MW-401-6	23-Nov-05	-	-	< 1	-	-	-	-	-	-
MW-401-6	18-Apr-06	0604326-01	< 1	< 1	< 1	< 1	< 1	< 1	-	-
MW-401-7	12-Oct-05	-	-	< 1	-	-	-	-	-	-
MW-401-7	23-Nov-05	-	-	< 1	-	-	-	-	-	-
MW-401-7 DUP	23-Nov-05	-	-	< 1	-	-	-	-	-	-
MW-401-7	26-Apr-06	0604518-01	< 1	< 1	< 1	< 1	< 1	< 1	-	-

**Notes:**

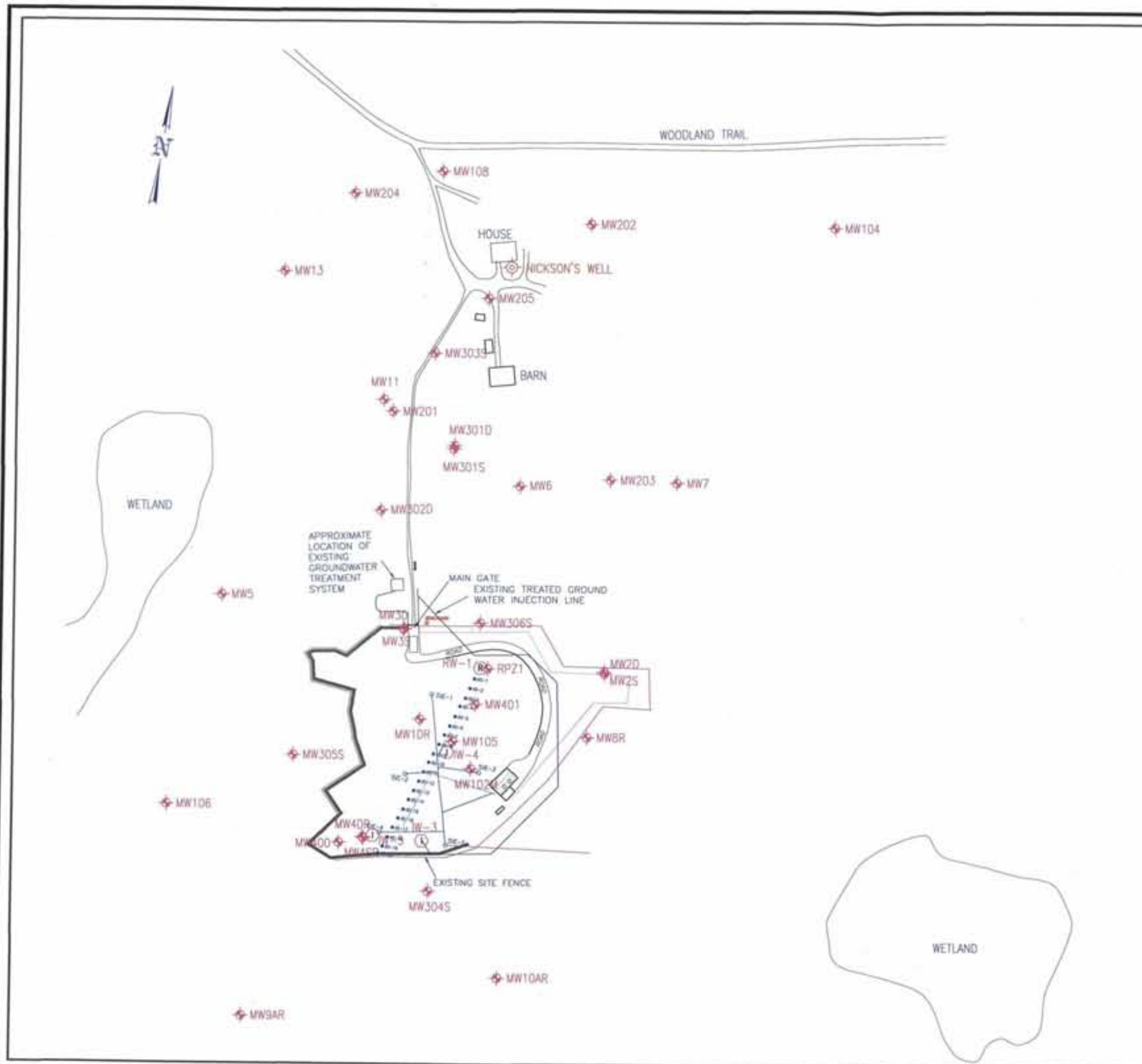
- 1 Well damaged or inaccessible due to soil remediation activities.
- 2 MW-3S and MW-3D were previously reported in EarthTech reports as "MW-3SR" and "MW-3DR", respectively.
- 3 In November 2000 and prior sampling events, the wells were purged and sampled with bailers, and the groundwater samples for metal analysis were filtered in the field. In May 2001, the wells were purged and sampled with bailers, and the groundwater samples for metal analysis were not filtered and submitted for total metal analysis. In November 2001, the wells were purged and sampled with low flow sampling techniques, and the groundwater samples for metal analysis were not filtered and submitted for total metal analysis. Note that the groundwater samples in May 2001 may contain solids and the data overestimate metal concentrations in groundwater due to the sampling method utilized. Low flow sampling techniques will be used in the future sampling events.
- < Denotes the detection limit determined by the limitations of the procedure or QC considerations.
- DUP Denotes duplicate sample
- J Indicates the compound was positively identified, but the concentration is below the Practical Quantitation Limit (PQL) and the value is an approximate concentration.
- U Indicates that constituent was not detected.
- B Indicates that constituent was also detected in blank sample
- NA Indicates that the sample was not analyzed for particular constituent
- \* Inorganic analyses for this well were from a sample collected on 10/04/94; VOCs analyses were run on a sample collected on 10/10/94. The resampling of this well on 10/10/94 was prompted by the breakage of the original VOC sample following shipment to the laboratory.
- Bold** indicates detected concentration exceeds the remedial action standard.
- 4 indicates the spike percent recovery was outside the control limits.
- 5 Due to the relatively high turbidity, the sample was filtered in the field for dissolved metal analysis, and a non-filtered sample was also collected for total metal analysis. The reported result shown in the table is dissolved lead concentration

**Abbreviations:**

TCE - Trichloroethene  
1,1-DCE - 1,1-Dichloroethene  
1,1,1-TCA - 1,1,1-Trichloroethane  
1,1-DCA - 1,1-Dichloroethane  
AS - Arsenic

**Attachment 3**

**Well Locations**



# LEGEND:

- EXISTING MONITORING WELL LOCATIONS
- EXISTING WATER WELL
- EXISTING RECOVERY WELL
- EXISTING INJECTION WELL
- SVE WELL
- AIR SPARGE WELL

# NOTES:

1. THIS DRAWING WAS BASED ON AN ELECTRONIC FILE, PROVIDED AND PREPARED BY EARTHTECH, FILE NAME SITE.DWG WHICH NOTED THAT ABRAMS AERIAL SURVEY CORPORATION, LANSING, MI. PHOTOGRAPH DATE APRIL 28, 1992, A.A.S.C. #24521 AS THE ORIGINAL SOURCE OF THE BASE MAP.

SPRINGFIELD TOWNSHIP SUPERFUND SITE  
OAKLAND COUNTY, MICHIGAN

PROJECT NO.  
61239.20

FIGURE NO.  
3

WELL LOCATION PLAN

100' 200'

SCALE : 1 IN. = 200 FT.

PROJ MGR: JC  
DESIGNED BY: BAC  
REVISED BY:

DRAWN BY: MS  
APPROVED BY:  
DATE: 11-28-07

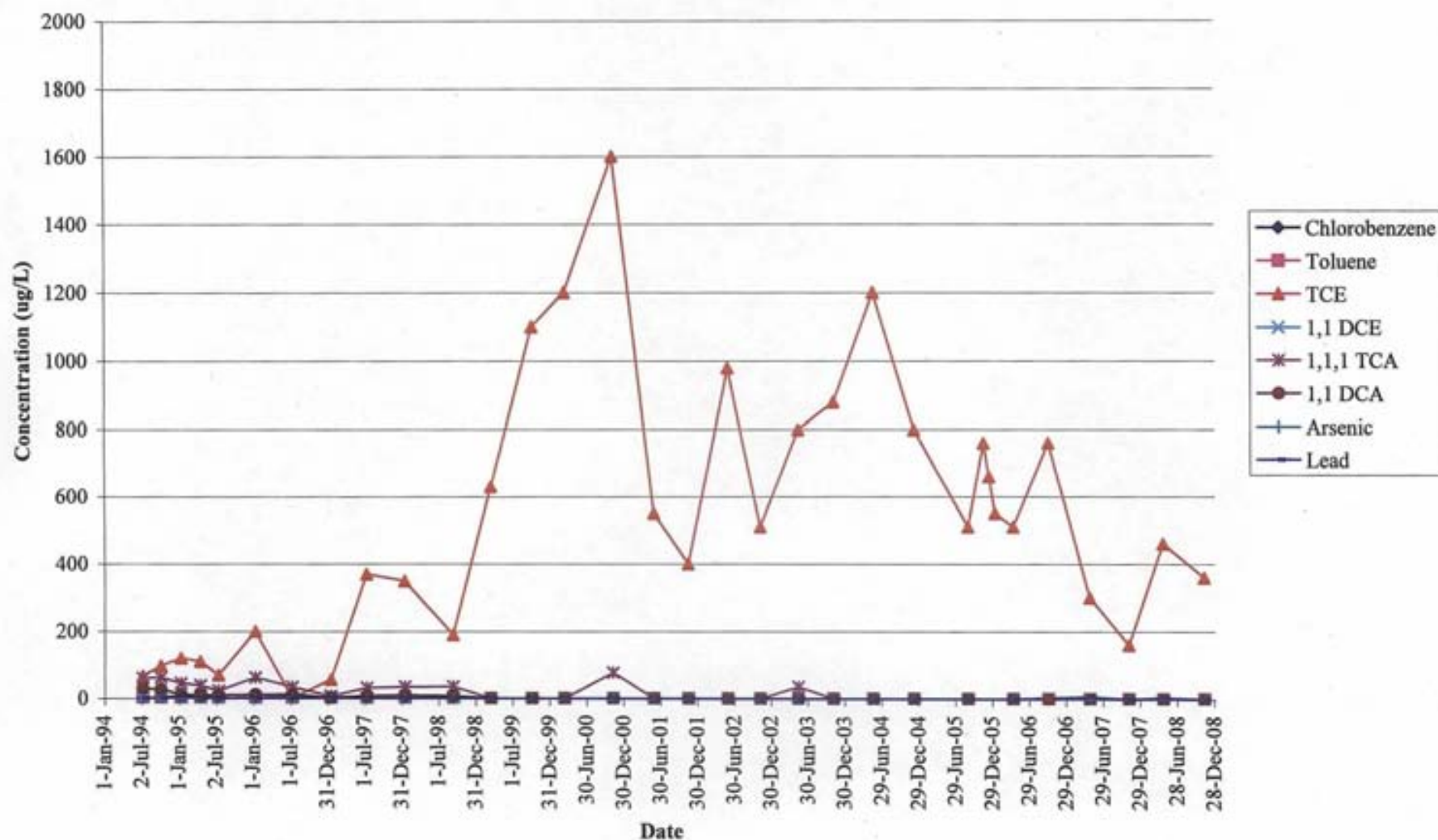
GZA  
GeoEnvironmental, Inc.

**Attachment 4**

**Historical Groundwater Contaminant Concentrations  
MW-105 and MW-4SR**

Historical Groundwater Concentrations  
Springfield Township Superfund Site  
Oakland County, Michigan

MW-105



Historical Groundwater Concentrations  
Springfield Township Superfund Site  
Oakland County, Michigan

MW-4SR

